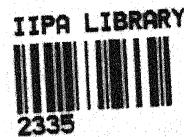
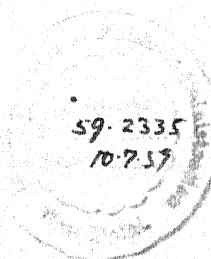


TWENTY EIGHT CONTRIBUTORS



India Speaking



VORA & CO., PUBLISHERS LTD.
ROUND BUILDING, KALBADEVI ROAD, BOMBAY 2.

First Published in U. S. A. 1944.

First Indian Edition 1945.

Price Rupees Eight

**Printed by R. R. Bakhale, at the Bombay Vaibhav Press, Sandhurst Road, Bombay 4
Published by M. K. Vora for Vora and Co. Publishers Ltd., Round Building, Bombay 2.**

INTRODUCTION TO INDIAN EDITION

This Indian edition of "India Speaking" the special Number of the Annals of the American Academy of Political and Social Science will, I hope, prove of interest to the general public in this country.

The articles published here were planned and written in the middle of 1942, the object being to place before the American public an unbiassed and authoritative view of the Indian problem. To this end, an attempt was made to get contributions from eminent men in India on problems in their special field. The political developments after August 1942 made a complete fruition of this project difficult. However, it was decided to carry the project through. The work of editing the volume was entrusted to myself and Professor C. N. Vakil, Director, School of Economics and Sociology, University of Bombay. The volume was published in America in the middle of 1944.

With the permission of the American Academy of Political and Social Science, this Indian edition of the volume is now being placed before the Indian public. Some of the factual material in these articles is not up-to-date; it refers to the situation some three years ago. Even so, the articles brought together here will, I am sure, have a value for the general reader. This opportunity to reprint this volume is being utilised to include an article by Mr. K. M. Munshi on 'War and Political Outlook in India' which could not reach America for inclusion in the original volume.

MANILAL B. NANAVATI.

(In this edition all spellings have been kept according to the American edition).

CONTENTS

PAGE

INTRODUCTION TO INDIAN EDITION	3
EDITORS' INTRODUCTION	5
POLITICAL OUTLOOK	
DEFENSE OF INDIA	<i>H. N. Kunzru</i> 10
INDIAN STATES AND THEIR POSITION IN INDIAN POLITY	<i>V. T. Krishnamachari</i> 15
CULTURAL BACKGROUND	
CULTURE OF INDIA	<i>S. Radhakrishnan</i> 21
INFLUENCE OF ISLAMIC CULTURE ON INDIAN LIFE	<i>Humayun Kabir</i> 25
EDUCATION IN BRITISH INDIA	<i>Syama Prasad Mookerjee</i> 37
SCIENTIFIC RESEARCHES	<i>C. V. Raman</i> 43
INFLUENCE OF MODERN THOUGHT ON INDIA	<i>Beni Prasad</i> 51
POPULATION PROBLEMS	
THE FROZEN MANPOWER OF INDIA	<i>Gyan Chand</i> 59
INDIA'S HUMAN RESOURCES	<i>S. Chandrasekhar</i> 66
NUTRITION AND HEALTH IN INDIA	<i>B. C. Roy</i> 82
ECONOMIC CONDITIONS	
PROBLEMS OF RURAL LIFE	<i>D. R. Gadgil</i> 88
MEASURES FOR IMPROVEMENT OF AGRICULTURE	<i>T. Vijayaraghavacharya</i> 96
NATIONAL INCOME OF INDIA	<i>V. K. R. V. Rao</i> 103
INDUSTRY AND LABOR	
HANDICRAFTS AND COTTAGE INDUSTRIES	<i>J. C. Kumarappa</i> 110
INDUSTRIAL DEVELOPMENT IN RELATION TO NATURAL RESOURCES	<i>P. P. Ginwala</i> 117
INDUSTRIALIZATION IN INDIA	<i>G. D. Birla</i> 125
LABOR IN INDIA	<i>B. Shiva Rao</i> 130
FINANCE	
GOVERNMENT FINANCE	<i>C. N. Vakil</i> 138
TARIFFS AND FISCAL POLICY	<i>B. P. Adarkar</i> 144
CURRENCY AND EXCHANGE	<i>Purshotamdas Thakurdas</i> 150
BANKING IN INDIA	<i>Manilal B. Nanavati</i> 156
AGRICULTURAL FINANCE	<i>V. Ramadas Pantulu</i> 165
TRADE AND TRANSPORTATION	
THE TRADE OF INDIA	<i>B. K. Madan</i> 174
COMMERCIAL ORGANIZATION IN INDIA	<i>G. L. Mehta</i> 183
RAILWAYS AND ROADS IN INDIA	<i>C. N. Vakil</i> 190
WHY INDIA WANTS HER OWN SHIPPING	<i>Walchand Hirachand</i> 196
MISCELLANEOUS	
INDIANS OVERSEAS	<i>P. Kodanda Rao</i> 203
WAR AND POLITICAL OUTLOOK IN INDIA	<i>K. M. Munshi</i> 211
INDEX	225

Editors' Introduction

THE civilization of India is among the most ancient in the world and in very early times attained a height and fullness of development hardly reached, and not excelled, by any nation under similar conditions. Her arts and literature, sciences and medicines, mathematics and astronomy, philosophy and metaphysics flourished, and her social and political sciences had also made great progress before the beginning of the Christian Era. The trade of India, too, was extensive, and her industries prospered according to the standards of the times. The influence of the Indian civilization was not confined to this country, but spread far beyond her borders to large parts of Asia and certain parts of Europe through a process of peaceful conquest. The spirit of Asoka symbolized the essential character of this expansive process.

Within the country a succession of empires was built up by native rulers, but they lacked stability, owing partly to the size of the country and lack of adequate means of communication. India had further developed a good system of local government through panchayats or associations of local leaders, which conducted the ordinary activities of the village, the unit of social and administrative organization, undisturbed by dynastic changes.

From about A.D. 1200 a series of conquering hordes poured into the vast plains of this country through the difficult northwest passes. The wealth of India attracted the nomadic tribes from the steppes of central Asia. These tribes made their homes in the country of conquest and were gradually absorbed in the mass of the population, contributing their own traits of character and customs the texture of Indian civilization, which underwent a continual process of transformation.

UNDER THE BRITISH

Then came the British. A unique feature of British administration in India distinguishes it from all previous foreign administrations. The center of ultimate political authority has continued to be located thousands of miles away, and most of the personnel of the higher services, civil and military, have been recruited from a distant land to which they continually revert throughout their long stay here of singular aloofness from the general population, and to which they return with all their administrative experience and wisdom gathered during "foreign service" here. This has naturally made for a lack of understanding and sympathy, and created a greater gulf between the rulers and the ruled in India than ever before in the history of this country. It represents a state of affairs for which Indian history affords no ordinary solution.

The advent of the British coincided with the start of the industrial revolution and the development of modern means of communications, and therefore helped to create and to maintain a structure of political, administrative, and economic unity which had never before been possible. The establishment of law and order and the introduction of a uniform system of government over a country of continental dimensions have been the highest achievement of British rule in this country.

With peace restored and orderly government set up during the difficult decades of the nineteenth century, the stage was set for an era of fruitful economic advance and political progress. The new contact with the civilization of the West, which was itself undergoing a revolutionary change and ever unfolding new aspects, sent dynamic impulses through the political and economic frame of the country, and the awakening spread as the twentieth century advanced.

However, the country had to pass through a difficult and painful period of transition and adjustment to the new forces and factors at play. The indigenous Indian industry languished for want of government support, in the early stages in the face of active government opposition, and all through in the face of competition from the organized machine industries of England with powerful governmental backing. The ruralization of the country proceeded apace and the numbers dependent on industry dropped from decade to decade. The old social and political institutions, with their native corporate tradition, also fell into disintegration owing to the impact of new individualistic influences.

The direction of progress, economic and political, for which people aspired had to be appropriate to the new atmosphere. In the economic sphere, the new large-scale industrial organization of the West, which had been the means of ruin for many of the ancient arts and crafts of the country, was the model. In the political field, the ideals of constitutional freedom, of democratic self-government, and of civil liberty, with their corresponding apparatus of institutions, were the goal of popular striving.

SINCE WORLD WAR I

The First World War saw decided progress in both directions, but the basis of progress which resulted from the pressure of events was inordinately slow and halting. To take the economic sphere first, the claims of Indian economic nationalism came into conflict with British economic imperialism, and the former naturally suffered. A peculiarity of the increase in Indian production incidental to the growing commercialization of the Indian economy was reflected in the character of the trade, which consisted mainly of exports of raw materials and foodstuffs and imports of manufactured articles. The financial, industrial, and economic policy of the Government of India, from circumstances of its origin, was naturally tempered with a solicitude for British interests and was largely negative. The positive element was to be seen in a certain limited sphere, that of railways and famine relief and latterly irrigation. The filip to industrial development imparted by the First Great War and the keen realization of the potentialities as well as deficiencies in the industrial sphere led to a limited encouragement of industries under a policy of discriminating protection in respect of such industries as iron and steel, cotton, matches, sugar, and paper, but protection was tempered with a substantial measure of preference for British imports. There was in general no integrated policy of national economic development and progress in banking, insurance, finance, industry, and shipping was hampered by British vested interests in these fields.

The passing of the Government of India Act of 1935 witnessed a further stage in India's national development. The inauguration of provincial autonomy in 1937

ushered in an era of much democratic enthusiasm, and the popular governments set up in the provinces initiated a policy of economic betterment and amelioration of the masses. The Congress which was in power in eight out of eleven provinces set up a National Planning Committee with a view to framing a comprehensive scheme of national reconstruction and educational, industrial, and social planning. Unfortunately the work undertaken by the committee was interrupted by developments in the political sphere which conspired to send the Indian National Congress into the wilderness.

The present war gave a fresh and decisive stimulus to the development of existing industries and the establishment of new ones. But the contribution of India to the economic war effort of the United Nations, great as it is, might have been on a far more imposing scale if the economic policy during the interwar period had been shaped by a proper regard for Indian economic progress or by a broader vision of the larger imperial interests. A vast sub-continent, with an abundance of natural resources and a supply of cheap and plentiful labor, deficient no doubt in skill but with a tradition of industry, and capable, if trained, of acquiring a mastery of modern technique, India is among the few agricultural countries which possess all the essential requisites for the development of a fairly balanced economic organization.

POLITICAL EVOLUTION

The prevailing sense of frustration which has inhibited any marked economic development has also balked the course of political evolution. The magnificent contribution of India in men and materials during the First Great War evoked the famous declaration of August 1917 which promised the gradual realization of self-governing institutions as the goal of Indian political development. In pursuance of that declaration a measure of autonomy was granted to the provincial units, and a part of the provincial administration was transferred to the control of popular ministers. This experiment in dyarchy was a failure, owing partly to the reservation of finance. Meanwhile, the sense of political consciousness among the masses was increasing, and dissatisfaction with a bureaucratic regime was growing more intense. At the same time, the operation of separate electorates whereby the legislative councils and assemblies were to be composed of representatives of different communities elected by the separate and exclusive vote of the members of the respective communities was creating dangerous fissures in the body politic, and steadily undermining the foundations of a sound democratic development based on a healthy alignment of parties according to economic and social ideals rather than on immutable faith which figures so little in the ordinary business of life. The accentuation of communal differences over the distribution of legislative seats and service proportions was a measure also of the extent to which political consciousness was confined to the intelligentsia, and showed the absence of any profound awakening among the mass of the population. Lack of education and social backwardness, indebtedness and poverty were at once the main problems and the principal obstacles to the realization of any economic or political advancement. The result was stagnation.

Meanwhile, the constitutional scheme was due for revision, and the greater part of the decade of the thirties, when urgent economic problems demanded action

towards satisfactory solutions, was spent in hammering the outlines of the new constitutional structure. It had an amphibious Center on a federal basis with representatives of peoples and princes, of autonomous British Indian provinces and states maintaining direct allegiance to the Crown, organized on the discredited dyarchic model transferring a modicum of authority to Indian ministers and reserving essential control over defense and finance, and with ample safeguards for British vested economic interests. The result pleased no one, though the provincial part of the scheme, as already observed, functioned for a time to the apparent satisfaction of all concerned.

THE PRESENT IMPASSE

The outbreak of war, however, altered the entire background. It called for the fullest mobilization of the material and moral resources of India, as of other Allied nations, towards a complete and speedy victory, and required the heaviest sacrifice and effort. The people of India, disposed by instinct as well as trained by observation of world events to sympathize with victims of Nazi tyranny, felt an urge to side with Britain and her allies, but were disturbed by doubts about their own position and about the ends for which they were to fight. Here the penumbra of a century of mutual distrust barred the way to understanding, and India awaited a clear and unequivocal statement from Britain of her own attitude in regard to the postwar world order and the place of India in it. The equivocal and uncertain utterances of British statesmen on these points, however, with the brief interlude of the Cripps Mission, have done little to break the deadlock which was precipitated by the war. On the other hand, the logical consequence of the fissiparous tendencies stimulated through the consistent policy of emphasizing the elements of diversity rather than of essential unity in the life of the country has been the extremist demand for the disruption of India into several sovereign states.

In the face of apparently irreconcilable demands from the population, the old administration carries on the nineteenth-century tradition, while the main body of the Indian people witnesses the grand tragedy on the world stage with a pathetic sense of frustration. The expressed points of view of the main British Indian parties in the matter of an internal settlement are in close approximation, but the unwillingness of the British authorities to transfer power owing partly to a distrust of Indian intentions as regards war, about which, by and large, there never has been any doubt, blocks the way to an Indo-British settlement. It is time for a bold initiative and some farsighted steps to end the impasse which saps war effort and postpones victory. A great gesture of trust in the Indian people is the desideratum. It should generate a tremendous response from the vast reservoirs of Indian good will and impart drive and momentum to the Allied offensive in the East.

IMPERIALISM DISAPPROVED

India, and indeed Asia, regards as crucial the elimination of European domination in the new world order of the future. No small share of the responsibility for the present, as for the last, war can be ascribed to the clash of rival imperialistic ambitions the exploitation of the economically backward and undeveloped regions in the primary interest of the ruling powers. The emancipation of Asia and the categorical denial

of the right of one people to dominate another are vital to the maintenance of lasting peace.

Again, the orgy of political and economic nationalism during the interwar period culminating in this devastating war has brought the idea of the sovereign nation state into disrepute. The nation state must therefore be stripped of its absolute sovereignty and own submission to a higher and wider order. But it does not appear likely that our state of intellectual development will make the ideal of a world state, laudable as it is, a proposition after the war. Grim experience has chastened aspirations. But a renovated League of Nations with an international air force and police force may ordain order throughout the world. Or a constellation of federations, confederations, or other groups of similar-minded nations may march forward in concord towards the goal of maximum welfare. The mention of human welfare is a reminder, too, of the callous disregard of this principle in the national and international economic policies since the last war. Increase in the purchasing power of the economically depressed communities as part of a concerted campaign against poverty and want, therefore, must form an integral part of the peace plan.

For too long has the process of evolution of a common culture for the world been held in abeyance and India been held from making her contribution thereto. A free and independent India may be a material loss to imperialism, but will be a great and powerful asset to the culture, the civilization, and the wealth of humanity; and the future belongs to humanity and not to imperialism.

The Editors' task in the selection of the subjects and the contributors has been somewhat difficult. India is a vast continent with many-sided problems, social, economic, political, and administrative; and it is difficult to select in the space allotted to this volume topics which would cover all the aspects, and naturally some important ones had to be dropped. As for the writers, an effort has been made to eschew a political or a party outlook, and they have been selected for their moderate and balanced views. But in a country situated as India is, it is difficult to eliminate political bias entirely, when conflicting interests are pervading every aspect of the life of the people. This conflict between the rulers and the ruled appears in every walk of life, and whatever views a person may take, they must reflect the main tendency of the Indian problem.....

Owing to political troubles and the partial disruption of the life of the people and the preoccupations of some of the writers with important activities of the country, there has been some delay in the preparation of the volume. However, we are grateful to the Academy for giving us this opportunity of placing before the world a background of Indian problems by Indians at this critical juncture of the history of the world and this country. We are also grateful to the contributors who have co-operated with us so willingly in making this volume a success.

MANILAL B. NANAVATI
C. N. VAKIL

Defense of India

By H. N. KUNZRU

INDIA manifestly occupies a position of vital strategic importance at the present time. Her geographical situation and her manpower and economic resources, though very inadequately developed, have enabled her to render invaluable help to the United Nations. The soldiers and supplies which she has sent to Egypt, Iraq, Iran, and other neighbouring places have been a very important factor in the maintenance of the Allied position in the Middle East. Her sons played a gallant part in the conquest of Abyssinia. The responsibility for the defense of Malaya, Singapore, and Burma fell mainly on her shoulders and she bore the brunt of the struggle. If England failed there it was due to no fault of hers.

It may probably be said without exaggeration that India is the key to the solution of the war problems in the East. The loss of India would lead to a catastrophic change in the fortunes of the United Nations. Had her military and industrial potentialities been developed in the past, she would have been a bulwark of peace in the East and the arsenal of democracy today; but, generally speaking, when the war broke out, the broad principles governing military policy were much the same as a quarter of a century earlier.

PREWAR POSITION

The Army in India consists of British and Indian troops, both paid for by the Indian Exchequer. The British troops are directly controlled by the British War Office. A proportion of them leaves India annually and is replaced by fresh drafts sent from England. Just before the commencement of the war, the Army had a sanctioned strength of 144,000 Indian and 52,000 British soldiers and about 7,200 officers. Of these officers about 6,900 were British and only 316 Indian.

The ordnance factories in the country supplied the Army with rifles, medium guns, shells, cordite, small ammunition, and so forth; but heavy artillery, antiaircraft guns, tanks, motor vehicles, and many other things required in modern warfare were not produced in the country. It was decided to mechanize the Army by stages a little before the war broke out. The scheme recommended by the Chatfield Committee, which made India in part responsible for what it called her "external defense," was to cost about Rs. 45 crores,¹ three-quarters of which was to be a gift from the British Exchequer and the remainder a loan, free of interest, for five years. India, inadequately industrialized and dependent mainly on agriculture, chiefly because of British policy, could not bear unaided the heavy expenditure involved in the mechanization of the Army.

The Indian Navy came into being in 1934, when the Royal Indian Marine which participated in the Great War was converted into a combatant force. It consisted in 1939 of five escort vessels ranging from 1,200 to 2,100 tons, a few auxiliary vessels, and some small craft. Its authorized establishment consisted of 113

1 Rs. 3 = 1 dollar; 1 crore—10 millions.

officers, mostly British, and about 1,900 men, almost all of whom were Indians. It has been laid down that only one-third of the officers recruited every year will be Indian.

The Air Force in India consist of the Royal Air Force and the Indian Air Force. The Indian Air Force, like the Royal Indian Navy, is a recent creation. An Indian squadron was formed in 1933. It was completed in 1939, and the Air Force in India consisted then of one Indian Army squadron and eight R.A.F. squadrons. Almost all the officers in the I.A.F. were Indian.

In the last prewar year, 1938-39, the defense expenditure amounted to Rs. 46.18 crores. The magnitude of the defense budget was a subject of constant complaint, owing partly to India's poverty and partly to political reasons. In the first place, the Legislature had absolutely no control over it. In the second place, the British Army imposed a heavy charge on Indian revenues, as a British soldier costs about three times as much as an Indian soldier. Lastly, the Army was regarded as an instrument of foreign domination, as the authorities turned a deaf ear to all demands for altering its character. Proposals brought forward in the Legislature for the recruitment of the Indian Army on a wider basis, the Indianization of the higher ranks of the defense forces, and a progressive reduction in the number of British troops were always opposed by the authorities.

Composition of Army

The British element in the Army is about two-fifths of the Indian element. This proportion, which has been maintained for three-quarters of a century, was in effect recommended by a Royal Commission which inquired into the organization of the Army after the Indian rebellion of 1857, the object of the recommendation being, as another Commission pointed out later, the retention of "an irresistible force of British troops in India." The Commission also proposed that "the artillery should be mainly a European force." As a result of this, the artillery, broadly speaking, formed part of the British Army. An Indian unit of artillery was started only about ten years ago.

It should be noted that what is called the Indian Army is not wholly Indian. It contains about 20,000 Gurkhas who belong to the independent state of Nepal. The rest of the Army consists of Indians but according to the Simon Commission 62 per cent of it is drawn from the Punjab Province and Kashmir taken together. Only 30 per cent of it is recruited from the rest of India. This disproportion is believed to be due to political reasons, but it is justified by the authorities on the ground that a large proportion of the people who live far from the North-West Frontier are nonmartial. Facts militate against this explanation. The United Provinces of Agra and Oudh, with their glorious traditions, cannot be regarded as nonmartial, and the Madras soldier does not yield in valor and endurance to his Punjabi companion in arms. The Navy and the Air Force have not limited their choice to any class or any province, but this has not adversely affected their efficiency.

The paucity of Indian officers in the Indian Army is due to the fact that for a long time Indians were not allowed to be trained as officers. The ban on their

admission to the Royal Military College at Sandhurst, where alone they could acquire the necessary training, was removed only during the Great War. It was announced in 1917 that ten Indian cadets would be admitted annually to the Sandhurst College. This number was increased in 1928. An Indian military college was established in 1932 in accordance with the recommendation of the Defence Sub-Committee of the Round Table Conference, and the number of cadets to be trained was further increased; but notwithstanding these steps, the annual recruitment of British officers was not reduced.

WAR DEVELOPMENTS

All branches of the defense forces have been considerably expanded since September 1939. As regards the Army, about a million men have been recruited. The number of recruits coming in monthly, which was about 20,000 to begin with, rose to about 70,000 recently. To provide the officers required, the Indian Military Academy has been considerably enlarged and three Officers' Training Schools have been started, one of which is reserved for European and Anglo-Indian cadets. New centers for training Indian and British officers for the Artillery, Indian Corps of Engineers, and other technical units have been opened, and technical training schools have been started all over the country to train the subordinate technical personnel required for the Army.

Under the pressure of the war the authorities have had to go beyond the Punjab and recruit men hitherto regarded as ineligible. For instance, Madras, which was thought to be of no account before the war, is being drawn upon freely now. The officers trained for the new army were at first largely British, but steps had to be taken afterwards to train more Indian officers also. The proportion of Indian to British officers is still only 1:4.75, but the increase in the number of Indian officers has been large enough to disprove the pre-war assumption that India could not supply an adequate number of officers for her Army. It has also been sufficient to show that Indian officers are not behind British officers in their capacity for leadership. The Secretary of State for India and the Commander in Chief have repeatedly acknowledged their skill, their initiative, and their courage.

Navy

The Royal Indian Navy has shared in the expansion of the Indian forces. By the end of 1941 it had been expanded by more than six times. The training of officers which was formerly carried out in England is now carried out in India. Training institutions of various kinds have been formed or enlarged. For instance, a Torpedo School has been started, and a new Anti-Submarine School, which it is claimed "will be the largest in the British Commonwealth with the exception of that in the United Kingdom," will replace the existing Anti-Submarine School. Vessels of limited tonnage are being built in India, but the larger craft have to be obtained from England and Australia. The R.I.N. has taken part in operations in the Pacific, the Red Sea, the Persian Gulf, and the Indian Ocean, and it saw service in the Battle of the Atlantic for several months. It is regrettable, however, that the proportion of 1:2 between Indian and British Officers in the R.I.N. is still being maintained. Comrade.

ship in the war has failed to kill racial prejudice. Taking the R.I.N. and its reserves together, the proportion of Indian to British officers is 1:2:4.

Air Force

The Air Force in India has been considerably strengthened since September 1939. Several training centres have been started, and, chiefly owing to private initiative, an aircraft factory for the assembly and manufacture of air-planes has been started. The Finance Member stated in February 1942 that "it is confidently hoped that the factory will complete its program of fighter and bomber construction before the end of the present year." The Air Force, however, consists mainly of British and American squadrons. The number of Indian squadrons is only four. In addition to these, there are five coast Defense Flights and a squadron which is half Indians and half British. All the four squadrons are commanded by Indian officers. The goal which the authorities have set before themselves is the formation of ten squadrons. The Indian Air Force has already proved its worth, and acting Wing-Commander Mazumdar has been awarded the D.F.C.; but it is too small to satisfy the country. Although the Air Force is a vital arm and has attracted Indian youths as no other section of the Indian forces has, we are as far from having a real Indian Air Force as we were three years ago. The paucity of planes, instructors, and skilled ground staff was held to prevent more rapid progress, but Indians think that these difficulties should have been overcome and that the country should not have been made to depend almost wholly on outside assistance for its protection against air attacks. Besides, they feel that they have not been allowed to take advantage of Empire Air Training Scheme.

Financial burden

The defense schemes which are being carried out have imposed a heavy burden on India. The Finance Member stated in February 1942 that the war commitments would involve an initial outlay of Rs. 100 crores and a recurring expenditure of Rs. 40 crores. The defense budget has risen to Rs. 133 crores causing a budgetary deficit of Rs. 47 crores, and the actual expenditure, it is feared, will considerably exceed the budget estimate. This takes no account of the liability accepted by the British Government in connection with the mechanization of the Army in India and the initial provision of modern weapons and equipment which amounts to about Rs. 100 crores. It may be mentioned here that the indents for supplies from America under the lend-lease scheme which would not have to be paid for immediately amounted in value to Rs. 47 crores up to the end of January 1942. The rapid growth of defense expenditure, which imposes a heavy burden on India, is causing no little concern to the Government and the public; and the people are anxiously asking themselves whether the sacrifices they are making, though necessary for the defense of their country, will win for it a position of equality with other nations.

The war has had one very important result. Britain's purchases of defense supplies from India have enabled India to repatriate 85 per cent of her sterling debt and raised her from the position of a debtor country to that of a creditor country.

Industrial progress

The demand for war supplies has accelerated the pace of industrial progress also. The recommendations of the Roger Mission from England and the activities of the

Eastern Group Council have been beneficial in this respect. Taking the war industries first, the Government Ordnance factories have been expanded. The outturn of weapons and high explosives has been considerably increased and the manufacture of new kinds of high explosives started; but the output is wholly insufficient for India's needs, and heavy artillery, tanks, and so forth are not yet produced in the country. Armored bodies for fighting vehicles are being built. Naval vessels, such as trawlers and minesweepers, are also being built. Marine engines are in course of production. The output of steel has been doubled, and a private firm has established a shipbuilding yard with limited assistance from Government, where merchant ships are being built.

Among other industries, heavy chemical industry deserves notice. The output of some chemicals has increased and the production of some others—for instance, synthetic ammonia, caustic soda, bichromates, and bleaching powder—has begun, but the country's requirements far exceed the present production.

Taking war supplies as a whole, the industries that have developed most are those concerned with the manufacture of consumption goods, like textiles, leather goods, and tents. It is a subject of just complaint that very little progress has been made in respect of capital goods. The country still depends, for example, almost wholly on imports for machine tools. The manufacture of automobiles could not be started, because of want of support from Government. The manufacture of railway locomotives has been shelved because of the war! The manufacture of power alcohol also has been neglected in spite of its importance, though it is being manufactured in the Mysore State.

The Grady Mission, which visited India early in 1941, while acknowledging the progress already made, observed that "much remains to be done before a complete mobilization of India's resources is attained." Only some of its recommendations have been made public. What action Government proposes to take in respect of its report, which is believed to be progressive, is not known, but no important change in policy is expected.

CONCLUSION

The foregoing account of the Indian defense system and its development owing to the war gives an idea of the efforts made to mobilize the material resources of the nation. It makes no reference to the mobilization of its spiritual resources, because no effort has been made to touch the hearts of the people and appeal to their imagination. The authorities appear to think that they need do nothing to rouse the spirit of the nation, because, under the stress of economic necessity, recruits are offering themselves in large numbers and Indian soldiers are displaying their traditional bravery and power of resistance. The authorities are scarcely conscious of the humiliation which Indians feel and the disability which weighs upon the Indian Army, because it is a body without a soul, and thus differs greatly in character from the Chinese or Russian Army, which is animated by a national spirit and invigorated by the feeling that it is fighting for the attainment of a great spiritual aim.

The Indian defense system, though outwardly strong, suffers from serious moral weakness because it is not sustained by the uplifting power of a great idea. It is necessary for both military and ideological reasons to rouse the patriotism of the Indian people, who are genuinely anti-Axis, and to place them in a position to give of

their best to the cause of the United Nations. They should be enabled to feel that they are free and are co-operating on a footing of equality with other nations, under national leadership, in the defense of human freedom. The situation clearly calls for the establishment, subject to the strategic control of Allied war councils, of a national government at the centre with an Indian Defense Minister, the relations between whom and the Commander in Chief should be the same as those between the Australian Defense Minister and General MacArthur.

The Cripps proposal, which concerned itself solely with the future and denied India any real immediate freedom, was based on distrust. It was inspired by the fear that if Indians controlled defense they would betray the Allies. It did not even permit of the recruitment and training of Indian officers and soldiers under Indian authority. It failed therefore to appeal to the mind or heart of India. Frustration and the consequent exasperation have led to regrettable and dangerous developments. The growing American war help may stiffen Britain's attitude towards India, but wisdom demands that it should take immediate steps to bring about complete moral unity between itself and India so that Indians may be able to fight for freedom with the strength and determination of free men.

Hon. Hirday Nath Kunzru, B.Sc., LL.D., is president of the Servants of India Society, whose members are national missionaries pledged to devote their lives to the service of India. He has been a Member of the Council of State (Upper House) since 1936 and is a member of the Defence Consultative Committee of the Indian Legislature. He has been active in the public life of the country, serving in various capacities.

Indian States and Their Position in Indian Polity

By V. T. KRISHNAMACHARI

A N ATTEMPT is made in this article to describe, in broad outline, the position of Indian states in the polity of India. Politically, India consists of two parts—British India governed by the Crown according to the statutes of Parliament and laws made by the Indian legislatures, and the Indian states bound to the Crown on a basis of what has been described as "subordinate co-operation." The distinguishing characteristics of Indian states are that Parliament and the subordinate legislatures set up by Parliament in India have no power of legislation in regard to them and that they are under hereditary Rulers whose relationship to the Crown is governed by treaties (in the case of forty states), engagements, sunnuds, or political usage.

CONSTITUTIONAL POSITION

"The map of India," says Sir Bampfylde Fuller, "may be likened to an ancient tessellated pavement, the greater part of which has been replaced by slabs of uncolored stone work. The tesserae represent the native states." According to official publica-

tions there are 562 states: these cover about two-fifths of India and contain an aggregate population of ninety millions, a little less than one-fourth of the total population of India. The states vary from Hyderabad with an area of 82,700 square miles, a population of sixteen millions, and revenue of over seven million pounds, to single villages with minute populations and revenues of less than £150 divided among twenty to thirty shareholders. It is well to remember, however, that eight of the largest states contain more than half the population of the states, and that nearly two-thirds of the population live in the fifteen largest states.

Many of the important states existed before the advent of the British power in India, and came into relations with the Crown early in the nineteenth century. The smaller states with limited powers or "estates"—nearly 400 out of the 562 mentioned above—originally paid tribute, or were in other ways subordinate, to important states. Between 1818 and 1840 they were "mediatized," or made independent of the parent or superior states, and formed into groups which eventually came to be administered by officers of the Crown. In their nature and the problems they present, these estates are entirely different from full-powered states. Between the major states and the mediatized estates are states with complete powers which do not possess sufficient revenues to afford the essentials of good government. The distinction between these three groups—the major states, the other states, and the mediatized estates—is of vital importance in the consideration of the complicated problems presented by Indian states, though there will always be difference of opinion as to the line of demarcation between the first two groups.

When settled conditions emerged out of the welter of wars and internal disorder, a strong centralized governmental system was evolved in India which continues to this day with its essential features unchanged. At the head of this is the Governor General in Council, representing the Crown. He has a dual capacity. He administers the affairs of British India through an elaborate machinery. He is also in charge of the relations with Indian states. (In this capacity he is usually referred to as the Viceroy). In the conduct of these, he is assisted by officers of the Political department. The more important states have Political officers living in their capitals: other states are grouped together and a Political officer is assigned to each group. The main functions of the Crown in relation to states fall under five heads.

First, as the states have no international life, the Crown represents them in external affairs and protects their subjects when residing or traveling abroad. States are therefore under obligation to observe international arrangements for extradition.

Second, interstate relations are conducted through the Crown. Though the formation of the Chamber of Princes has enabled the states to come together, the position still remains that all agreements between states have to be concluded through the Crown.

Third, the Crown is under obligation to protect the states, whether they have made a contribution to the cost of the defense of India or not.

Fourth, while the general policy of the Crown is one of noninterference in the internal affairs of Indian states, the Crown has the obligation to see that a minimum standard of efficiency is maintained in the administration and that there is no misrule

or oppression, and to intervene and reform serious abuses where they exist. The basis for this is set out in the following extract from Lord Reading's letter to H. E. H. the Nizam :

The right of the British Government to intervene in the internal affairs of Indian states is another instance of the consequences necessarily involved in the supremacy of the British Crown. The British Government have indeed shown again and again that they have no desire to exercise this right without grave reason. But the internal, no less than the external, security which the Ruling Princes enjoy is due ultimately to the protecting power of the British Government, and where Imperial interests are concerned, or the general welfare of the people of a state is seriously and grievously affected by the action of its Government, it is with the Paramount Power that the ultimate responsibility of taking remedial action, if necessary, must lie. The varying degrees of internal sovereignty which the Rulers enjoy are all subject to the due exercise by the Paramount Power of this responsibility.

It is not always easy to say when abuses in an administration amount to misgovernment, and the degree of intervention depends on the personality of the Viceroy and the policies followed from time to time. It is not surprising, therefore, that on the one hand the Crown is blamed for interference without adequate grounds, and on the other, for delaying intervention till much avoidable suffering has been caused to the subjects.

Fifth, geographically India is one and indivisible; and it is an important function of the Crown to secure that in matters of common concern to the whole of India—economic and fiscal matters—the autonomy of states is reconciled with the common good of India as a whole.

For the sake of technical correctness, it should be added that in the act of 1935 the functions in relation to states are assigned to the "Crown Representative," as distinguished from the "Governor General" who represents the Crown in British India. Both offices are now combined in the same person.

The above is a brief résumé of the constitutional position. It is now time to turn to the more interesting questions relating to life and government in states and the co-ordination achieved and links forged between them and British India in matters of common concern and in the working out of economic policies for the benefit of the subcontinent.

GENERAL DEVELOPMENT

Life in the major Indian states presents special characteristics different from that in British India. Much of it, even in these days, centres around the Ruler. This can be easily understood. In all the states the ruling dynasty is at least 150 years old, and in some cases much older, and many ties bind the people to the Rulers. Largely on this account, there is more social homogeneity than in British India, and the harmony of life is generally undisturbed even where a composite social structure exists. Also, a cultural tradition has been built up in which the old and the new are blended, and there is pride in being part of a unit which has evolved a distinctive individuality through many decades. These larger states have modeled their governmental machinery and administrative arrangements after those of British India, but the spirit that actuates their working differs in the respects above mentioned. There is, in practically all cases, an Executive Council with heads of departments and district

and subordinate officers on the same system as in British India. The judicial arrangements are also on the same lines. The rule of law prevails. Land revenue settlements are on the whole equitable, and in some states assessments are lighter than in adjoining British India. Development activities and social services are also organized on the same lines. These states, for example, have built and are maintaining railways of their own; where conditions favour it there are irrigation systems and hydroelectric works on which millions of pounds have been spent; the mineral resources are surveyed and worked on up-to-date methods; there are large electric and telephone systems; several states have state or state-aided banks catering to the needs of the people; and maritime states have their ports. All states maintain agricultural departments, and the co-operative movement is making fair progress. Three of the states have universities of their own, in one of which the experiment of imparting the highest instruction in Urdu is meeting with success. Most of the states have colleges and all have primary and secondary schools and technical institutes. Medical relief is widespread.

The above sums up the general position of these states. The more progressive Rulers have set before themselves a high ideal, as can be seen in the following quotation from a speech made by one of them:

In many fields of activity—mass education, reorientation of indigenous culture, social legislation, devising of methods for associating the people with the administration, reconciliation of conflicting communal and other interests—the states with their distinctive traditions can embark on fruitful experiments; and it would be a pity to do anything which would deprive India of this wealth of political and administrative experience.

Some states are definitely in advance of British India in the extent of their social services and in development activities. It is in an Indian state that there is the highest percentage of literacy in India among men and women. Compulsory primary education for boys and girls was first introduced in an Indian state. Laws to bring Hindu law into accord with the vast changes that have occurred in society have been undertaken so far only in Indian states. These facts are enough to refute the charge usually made that states perpetuate medieval conditions. It is not claimed that the rate of progress in all the states coming under this group has been satisfactory. A rough assessment may be made: about a third of the populations in this category fall behind British India in the social services they enjoy; about one-third enjoy higher standards of social service than British India; and in the remaining third, conditions are the same as in British India.

With the progressive advance of democratic institutions in British India, the question of constitutional reforms in states assumed importance, as was to be expected. "Hopes and aspirations may overleap frontier lines, like sparks across a street," Representative institutions have developed in the larger states with varying degrees of influence on the administration. When British India advanced to responsible government in the dyarchical system of 1919 and in the provincial autonomy of 1935, the states held back. Most of them felt that the working of the system in British India had revealed stresses and strains and that they should explore other lines of progress more in accordance with their local conditions. In recent years advances in constitutional reforms have been made in some states, and schemes are under active

consideration in others. Progress is essential, and variations suited to individual traditions and requirements should certainly be encouraged.

The medium states are in a difficult position, as many of them have not sufficient resources to bear the burden of an organized administration meeting modern needs. Schemes have been framed by groups of these states for confederation for purposes of judicial and police administration and development activities. These may provide a solution of the problems which face the states falling under this head. The estates, which form our third class, do not possess the rudiments of good government. They are now being encouraged to join their parent or other states on terms approved by the Crown.

INTERRELATED DEVELOPMENT

With the development of India, the range of matters of common concern between British India and Indian states tended to become wider and wider; and one of the most important functions of the Governor General is to adjust the relations between them on an equitable basis. The first of these is defense. Many states contribute to the defense of India by payment of tribute. Several have ceded territories for this purpose. States maintain military forces, portions of which have been allotted a definite share in the defense of the country under an elaborately designed scheme. Such forces played an important part in the last war and are taking their share in the present world struggle.

In the second category fall the arrangements made in regard to the railway system of India, posts, telegraphs, and telephones. The railway system of India is a large one, with a mileage of 41,200. In this are included trunk lines traversing the country from one end to another, and strategic lines. For constructing and working these, it was necessary to arrange with states the conditions on which such lines were to be allowed to pass through their territories and the terms on which states should acquire and provide the lands needed, and also to secure efficient policing of the lines and a measure of uniformity in the civil and criminal laws applicable. Again, as between the railway systems belonging to Indian states and those of British India, uniformity was essential in regard to safety, rates, and interchange of traffic. Somewhat similar problems arose in regard to the trunk telephone systems. Again, to secure uniform postal and currency systems for India, agreements had to be made with Indian states. In all these, existing treaties were of no value. They did not cover such matters. Separate treaties and engagements had therefore to be made with individual states and a code of practice had to be built up in regard to subsidiary matters.

Third come fiscal issues. Sea customs is an instance. Agreements have been made with maritime states under which they are under obligation to adopt the tariffs in force in British India from time to time, and which define the extent of the retention by them of customs revenue collected at their ports. Salt is a monopoly, and the duty on it brings a large revenue to British India. To effectuate this monopoly, terms have been arranged under which states that used to manufacture salt gave up their rights. Along with this was taken up the question of freeing the trade of India from internal restrictions—the abolition of all duties levied by states on goods in transit from one part of India to another. Similarly, arrangements have been made with

states in regard to excise duties on matches, sugar, and other commodities. The steps taken by the Crown in these matters have been of the utmost value to India as a whole; without them, the country could not have developed its present economic and fiscal systems. The states have frequently complained that in these measures their interests were sacrificed to those of British India. It is not profitable to examine here whether or not this complaint has a basis in fact.

The policy of economic co-ordination and adjustment described above paved the way, as a more or less normal development, for the All-India Federation which was embodied in the act of 1935. The justification for the scheme, in the words of Lord Linlithgow, is: "first, that the early establishment of a constitutional relationship between the states and British India is of the utmost importance from the point of view of the maintenance of unity in India; and, secondly, that the existence of a central government capable of formulating policies affecting the interests of the sub-continent as a whole is of direct and immediate relevance to the economic circumstances of the India of today." The negotiations for making this part of the act effective were in progress when war was declared. It was then decided that further action should be held in abeyance. Later on came the Cripps declaration and the events connected with it. Their bearing on India's constitutional status has led to controversies which cannot be touched on here.

WHAT OF THE FUTURE?

What is to be the future of the states? It is impossible to forecast this at present. Much will depend on how long the war lasts and the forces released by it. One thing is certain—that there will be a drastic reconstruction of society immediately after the war. States cannot escape the effect of these forces, and will have to readjust themselves in response to them. In the meantime, they feel that they can usefully devote themselves to immediate measures of reconstruction the need for which is recognized. In the first place, it is felt that much greater progress should be made than in the past with schemes of co-operation and consolidation of medium states and with the schemes for the joining of estates to parent and other states. It is difficult to say how far this process of consolidation should go, but with the demand for higher standards of living among the people, present ideas on the subject have to be revised. Second, all states are convinced that they should make a steady effort to offer to their people a much higher standard of living than exists today and a much higher standard of social services generally. A larger proportion of the revenues will have to be devoted to these ends. This will mean a great drive for rural improvement, and also that states should play their part in the increased industrialization of India. Third, the pace of constitutional reforms will have to be quickened so that there may be as little disparity as possible between British India and the states. It is obvious that there need be no striving after uniformity with British India, but experiments in the association of the people with the government should be made in accordance with local traditions and sentiments.

Lastly, there is the problem of the reorientation of the relations of the states with British India. The states have made it clear beyond all doubt that they share with British India the desire that India should attain Dominion status—i.e., equality

with Britain—without delay, and that they would be prepared to readjust their relations with the new India on terms which would be equitable to all interests concerned. There need be no doubt that these readjustments will be effected in a spirit of give and take and of mutual understanding.

Rao Bahadur Sir V. T. Krishnamachari, K.C.I.E., after being connected with the Madras Public Service, became Dewan of Baroda (Prime Minister) in 1927, his services being lent to the Baroda Government. He acted as delegate to the Round Table Conferences, the Joint Parliamentary Committee and served as member of the Federal Structure and Finance Subcommittee, the Reserve Bank Committee from 1930 to 1934. He was a delegate on behalf of India to the Assembly of the League of Nations in 1934 and 1936; adviser to the Indian Delegation to the Imperial Conference in 1937; and chairman of the Committee of Ministers of the Chamber of Princes in 1941.

Culture of India

By S. RADHAKRISHNAN

INDIAN culture, which has had an uninterrupted continuity from the period of the Indus civilization and the Vedas and the Upanishads, is marked by a fundamental loyalty to the truths of spirit and a fine balance of individual desires and social demands. In spite of changes of fortune, social convulsions, and political upheavals, this characteristic spirit of India has persisted.

EMPHASIS ON SPIRITUALITY

- From the beginning of her history, India has adored and idealized, not soldiers and statesmen, not men of science and leaders of industry, not even poets and philosophers, who influence the world by their deeds or by their words, but those rarer and more chastened spirits whose greatness lies in what they are and not in what they do; men who have stamped infinity on the thought and life of the country, men who have added to the invisible force of goodness in the world. To a world given over to the pursuit of power and pleasure, wealth and glory, they declare the reality of the unseen world and the call of the spiritual life. Their self-possession and self-command, their strange deep wisdom, their exquisite courtesy, their humility and gentleness of soul, their abounding humanity, proclaim that the destiny of man is to know himself and thereby further the universal life of which he is an integral element.

If we turn to the Indus Valley civilization which archaeologists have unfolded for us in recent times, we see that among the relics of a religious character found at Mohenjo-daro are not only figurines of the mother goddess but also figures of a male god, who is the prototype of the historic Siva. Obviously, many of the features of modern Hinduism are derived from very early primitive sources. Sir John Marshall tells us that the god, who is three-faced, is seated on a low Indian throne in a typical attitude of yoga, with legs bent double beneath him, heel to

heel, with toes turned downwards, and hands extended above the knees. He has a deer throne and has the elephant, the tiger, the rhinoceros, and the buffalo grouped round him.¹ This figure of Siva, the great yogi, has been there from nearly 3250 B.C. (if not earlier), the date which archaeologists, give to the Indus Valley civilization, calling upon all those who have ears to hear, the native inhabitants of the land as well as the invaders from outside who frequently pass and repass, to be kings not over others, but over themselves. Perfection can be achieved only through self-conquest, through courage and austerity, through unity and brotherhood in life.

The mystical tradition which runs through the whole religious history of the country is set forth in the early Upanishads. Religion is a matter of experience. It is insight into reality, a direct awareness of the world of spirit, Brahmadarsana. The men of experience feel the presence of God and do not argue about it. The reality of God is revealed in an immediate intuition of the essential dependence of all finite things, of the priority of absolute being to relative existence. The experience is an inward growth, not an external dependence. Tagore writes: "I am praying to be lighted from within, and not simply to hold a light in my hand."² Though the experience is beyond reason, it is not opposed to reason. Even in matters of spirit, rationality is insisted on. Brahmajijnasa or inquiry into Brahman, manana or reflection, pariprasna or examination, are essential prerequisites of the knowledge of Brahman.

NEGATIVE AND POSITIVE THEOLOGY

Those who live in God do not care to define. They have a peculiar confidence in the universe, a profound and peaceful acceptance of life on all sides. Their response to ultimate Reality is not capable of a clear-cut, easily intelligible formulation. The mystery of God's being cannot be rationally determined. It remains outside the scope of logical concepts. Its form does not lie in the field of vision, none can see it with the eye. There is no equal to it. An austere silence is more adequate to the experience of God than elaborate descriptions.

The Upanishads often give negative accounts of the supreme Reality. God is nothing that is. He is non-being. Pagans like Plotinus and Christians like Nichola of Cusa support the negative theology of the Upanishads. This negative theology also gives us a knowledge of Divinity. It affirms that Divinity is not perceived by the categories of reason. It is grasped by the revelations of spiritual life.

When positive accounts are given, we abandon concepts in favor of symbols and myths. They are better suited to life which is inexhaustible and unfathomable. God is regarded as father, friend, lover. Infinite power and infinite love are both revelations of God. God is infinite love that pours forth at every time and every place its illimitable grace on all that ardently seek for it. The divine solicitude for man is easy of comprehension when we look upon the Divine as Mother. She wishes to possess us, and so will pursue and track us down in our hiding places. God is in search of us.

¹ John Hubert Marshall (Ed.), *Mohenjodaro and the Indus Civilization* (London: A. Probsthain, 1931), Vol. 1, pp. 52-53.

² *Letters to a Friend*, p. 47.

The positive descriptions are variations of the central theme that God is a person. The negative theology makes out that even personality is a symbol. Brahman and Ishvara, Absolute and God, are not contradictory but complementary to each other. Each is the perspective offered to the special standpoint of the seeker.

Being a catholic religion, Hinduism expresses itself in a variety of forms and comprehends all the relations which exist between the divine reality and the human individual. It provides enough freedom for any man to go forward and develop along his own characteristic lines. It recognizes that the divine light penetrates only by degrees and is distorted by the obscurity of the medium which receives it. In the face of the Eternal we are all children. Each of us needs a picture or a symbol to help us to grasp the truth, and seen from the heights the symbols are all perhaps equally good, as long as they suggest the infinite reality. A perfect and complete conception of the Divine is difficult to reach. If we do reach it, our aspiration will reach its limit and our progress come to a stop. The symbols, however are employed by religion to focus our faith; but when they become more important than the faith itself, we have idolatry. It is this idolatry that stands in the way of religious fellowship and understanding. Dogmatic religions overlook the spiritual facts, and worship theological opinions. They are more anxious for the spread of the dogmas than for the spiritual education of the human race.

APPLICATION TO DAILY LIFE

Spiritual experience starts with the assumption that this world is unsatisfactory and human nature as it is, is unideal. The destiny of man is not, however, to escape from this imperfection, but to use it as an urge for improvement. There is no development without discontent, no growth without aspiration. Our limited consciousness is to be used as an opening to a higher, infinite selfexistence and beatitude. Contingent existence is to be raised to unconditioned significance. The cosmos is working out the great possibility of reaching spiritual oneness through the exercise of spiritual freedom, with all its consequences of danger and difficulty. While liberation is the supreme end of life, it is to be achieved here and now on earth through human relations. If spiritual ideas are to conquer, they can do so only by being embodied in institutions. The solemn rites which hallow the achievement of adolescence, the blessings of marriage, and care for the dead, are essentially acts of worship. All life is holy. Everything in the visible world can become a revelation of invisible reality.

The principles which we have to observe in our daily life and social relations are constituted by what is called dharma. It is truth's embodiment in life and power to refashion our nature. The forms and activities which shape and sustain human life are included in dharma. We have diverse interests, various desires, and conflicting needs, which grow and change in the growing. To round them off into a whole is the purpose of dharma. It rouses us to a recognition of spiritual realities, not by abstention from the world, but by bringing to its life, its business (artha), its pleasures (kama), the controlling power of spiritual faith. While the supreme aim of a social order is to train human beings for a state of spiritual perfection and sanctity, its essential aim is directed by reason of its temporal ends towards such a development of social conditions as will lead the mass

of people to a level of moral, material, and intellectual life in accord with the good and peace of all.

While the principles of dharma are immutable, the rules and regulations in which the principles are embodied are subject to change. Accessibility to new ideas and emancipation from the effects are the characteristics of the growth of dharma. No custom could be useful to all people at all times. If an organism loses the strength to excrete its own waste, it perishes. Freedom belongs only to the living. Life is not life unless it is thrusting continually into new forms. In these years when the tempo of life is quickened, when knowledge grows and ambitions expand, we must effect the essential changes. Groups like the Brahmo Samaj, the Arya Samaj, Ramakrishna mission, and men like Gandhi and Tagore combine fresh notes with ancestral voices. They believe that India's light can show us the path to the goal of the unity of all mankind. They strive for the social and ethical enlightenment of the people as well as their political advancement which is essential for the spread of India's mission.

INDIA'S WORLD-WIDE CONTRIBUTION

India has shown a glorious constancy in maintaining its ideals through long ages of oppression. Never has the flame of hope been quenched. It burns most brightly against the dark background of alien rule.

The vastness and antiquity of Indian civilization point to its value and vitality. Archaeologists have revealed to us not only the great antiquity but also the vast extent of the Hindu civilization. Hindu cities and temples were unearthed at Anuradhapura in Ceylon, at Borobudur in Java, and at Angkor in Cambodia. Hindu influence on Greece and Palestine through Indian soldiers in Persian armies and Asoka's missions is gradually being admitted. Sir Aurel Stein has traced Indian settlements and caravan routes through the desert of central Asia right up to the Great Wall of China. Buddhism found its way across the Indian borders into Mongolian countries about the second century B.C. For six hundred years from the reign of Kaniska to that of Harsha, cultural relationships between the Indians and the Chinese were uninterrupted. Chinese pilgrims who visited the holy places of India have left valuable records of their journeys, and many Buddhist works of which the originals are lost survive in Chinese, Japanese and Tibetan versions. Even in recent times, the names of Schopenhauer, Hartmann, Nietzsche, Deussen, Keyserling, Emerson, Thoreau, Whitman, W. B. Yeats, George Russell, and Romain Rolland remind us of the sovereign worth and validity of Indian culture for the modern world whose mind is obsessed by science, skepticism, and the anguish of denial.

If the world with its mixing of cultures and mingling of races is to be rebuilt the process of gradual integration of heterogeneous people described in the growth of India's culture, to which different races and religions have contributed, may have some lessons for us. The representatives of Indian spirit, whether they are the avatars of Rams, Krishna, or Buddha, or chastened souls like Ramakrishna or Gandhi, are prophets of comprehension and not of exclusion. In their life and teaching they stand for the organic union of different races and creeds. The Indian spirit affirms unity through differences of manifestation. Fear and weakness incline us to exclusion.

strength and humanity lead us to acceptance. Nanak and Kabir, Ram Mohan Roy and Rabindranath Tagore accepted what is valuable in Islam and modern civilization because they were soaked in the spirit of India.

India seems to hold in herself something significant for other lands as well. The sustaining power of faiths to which India has given birth, the warm hospitality with which she has welcomed all races and creeds, the temples, mosques, and churches which the dreamers of every faith have built to draw near to the heaven of their imagining, the sacred places of the human spirit which conquerors from abroad sought to profane and enslave, have made India hallowed ground for us all. In the deeper fabric of our thoughts, a cross fertilization of ideas and insights behind which lie centuries of cultured experience and earnest endeavour is taking place. Respect for other points of view, appreciation of the treasurers of other creeds, confidence in one another's unselfish motives, are growing. A larger synthesis in the spirit of India's ancient culture is being worked out, a synthesis which alone can give a spiritual basis to a world brought together into intimate oneness by man's mechanical ingenuity. Let us hope and pray that India's wisdom, patience, and sacrificial zeal, which have guided her through the dark periods of suffering and chaos, may lead her to her hour of liberty, the dawn of a new period for humanity at large, a new dawn; for as the Vedic seer sings: "More numerous forsooth are those dawns that have not yet dawned."³

Sir Sarvapalli Radhakrishnan, Kt., LL.D., F.B.A., is vice-chancellor of the Benares Hindu University. He is the only Indian to hold the Fellowship of the British Academy, and in June 1940 he was appointed Fellow for life of All Souls' College, Oxford. He is author of many works, including Indian Philosophy (2 vols.), Philosophy of Rabindranath Tagore, The Hindu View of Life, Kalki or the Future of Civilization, and The Philosophy of the Upanishads.

Influence of Islamic Culture on Indian Life

By HUMAYUN KABIR

FROM immemorial times, India has been the meeting place of conflicting races and civilizations. From immemorial times, it has tried to achieve a unity for the heterogeneous elements which make up the totality of its life. Different races have met and fought and fraternized on its soil. Conflicting cultures have struggled for supremacy and in the end been fused in new syntheses that have marked new levels of achievement for the human spirit. They all appeared on the scene as victors, but were soon absorbed in the ranks of the vanquished. Each fresh incursion of race or idea found the Indian temperament more malleable than before, and accelerated the process of assimilation and synthesis. At its worst, the process led to a mechanical juxtaposition; at its best, it brought to birth a new and organic way of life. The

³ Rig-Veda 11.28.9.

seething caldron never cooled, for new ingredients were continually added and in turn added to the richness and complexity of Indian life. The same process of conflict and synthesis, but intensified a thousand times, occurred with the advent of Islam in India.

THE UNITY OF GOD

The first and foremost characteristic of Islam is its emphasis on the unity of God. From this follows its universality. All Moslems believe that, as a universal religion valid for all times, it must reveal the eternal nature of truth. As such, it can have no individual founder; and when, on the analogy of Christianity, European writers characterize it as the religion of Mohammed, Moslems repudiate the description. In passing, it may be noted that this is also true of Hinduism, which recognizes no individual founder or lawgiver. According to Moslems, each country and age had its own prophet, and Mohammed was only the last of a long line who had all preached Islam to their own people in their own language. Moslems must therefore revere all prophets of former faiths and climes. There is, however, one important difference between former revelations and the last. All former prophets have appealed to man's devotion and faith and the sense of mystery evoked by the grandeur of the universe. Prophets have been not only holy men but men possessed of superhuman vision who compelled obedience from their followers. Miracles and supernatural manifestations of power have therefore been an essential ingredient in such faiths. Islam discarded this appeal to the transcendental. Mohammed was a man among men, and asserted more than once that he was subject to all the laws that govern ordinary human beings. He claimed no miracle, and his appeal was to the human reason.

The universality of reason was a direct corollary to Islam's emphasis on the unity of God. Since God is one and reason seeks to express His nature, the laws of reason cannot but be the same for all. It is therefore no accident that the triumphant progress of science begins with the advent of Islam. Pre-Moslem civilizations had also produced brilliant scientists, but the scientific temper requires for its growth a belief in the unfailing uniformity of nature. Laws of nature cannot, however, be uniform unless the nature they seek to express is itself uniform. Belief in the uniformity of nature requires a background of a monistic world based on the unity of God and governed by strict necessitarian laws which neither recognize nor allow any exception through any natural or supernatural agency.

Emphasis on the unity of God also broke down the distinction between the empirical and the transcendental. This is the obverse of the prophet's repudiation of miracles and the supernatural. The empirical acquired a new dignity, and men's attention was turned from the consideration of unearthly glory to the contemplation of the grandeur of the universe. Nature began to be valued, not merely as a symbol of some hidden truth, but for its own sake. We have seen how the belief in uniformity of nature was a necessary condition for the birth of the scientific temper, but it could not by itself have led to the phenomenal growth of science without the new spirit of reverence for the empirical fact.

The equality and brotherhood of all Moslems was equally a consequence of the emphasis on the unity of God. The universality of reason demanded from all rational beings the same behavior in the same circumstances. So far as men are

rational, they are equal in the sight of God. There is no distinction between man and man on the plane of humanity. The absence of any priestly class in Islam followed from the insistence on the universality of reason. The Moslem law of inheritance has often been criticized by jurists as tending to the division of property and constant changes in social stratification. It is in fact an expression of Islam's passionate insistence on social democracy, and acts as an instrument for preserving the fluidity of the social system. Along with the law for compulsory payment to the Communal Fund, the law of inheritance operates against the stagnation of wealth in family pools, and frees property from the bonds of birth and vested interests.

UNIVERSALITY BUT NOT UNIFORMITY

Islam's claim to universality does not require that all Moslems all over the world must show a dead uniformity in thought, speech, and behavior. The unity of truth is not incompatible with differences in manifestation in different contexts. On the contrary, such unity demands that truth cannot be identified with any of its special manifestations. Differences of language prove that the same truth not only may but must have different forms for peoples of different lands. The truths of religion also show local variations. The very universality of religion demands that it must dominate and give a tonal unity to differences based upon geographical, climatic, and historical considerations. In the days of its vitality, Islam did not seek to destroy the tradition or historical inheritance of any race. Elements of the past in direct conflict with the fundamental tenets of Islam were alone sought to be rejected. Elements capable of assimilation and synthesis were taken up and led to the growth of a new civilization and culture. There existed differences in customs and traditions among Moslems in different countries, but these did not disturb the unity of atmosphere which Islam spread over a major portion of the contemporary world for over five centuries.

PROCESS OF ASSIMILATION AND SYNTHESIS

The impact of Islam on India was deep and profound. The contact between new and old modes of thought compelled acute and sensitive minds to think afresh about the eternal problems of the universe. Men's minds were freed from the tyranny of old traditional ways. New religions and philosophies appeared to mark the reprobation between Hindu and Islamic modes of thought. Yet the assimilation and synthesis between the two systems was not complete, for the facts of physical distance and inaccessibility remained. The interchange of thought and culture between the capital and the country remained imperfect. The small, compact, and on the whole, homogeneous Moslem aristocracy gave the tone to civic culture. In the country it was otherwise. Difficulties of communication preserved some of the independence of the local units. Without constant interchange of men and ideas, the inherent rigidity of social forms was able to assert itself. The result was that Moslems in the provinces were influenced by the pressure of Hindu forms of life. Rural culture, in spite of large-scale changes in religion, remained dominantly Hindu, for men changed their creed but not their way of life.

In the extant textbooks of Indian history the record of difference and conflict is kept alive, but the story of fusion and synthesis is either forgotten or ignored.

We are told the story of the rise and fall of dynasties, of invasions by new hordes from outside, and gruesome accounts of oppression, pillage, and rapine. There is hardly any mention of social or cultural institutions or the emergence of new social forms.

The history of India in the Middle Ages is in fact a story of assimilation and synthesis. At first under the Pathans and later on a wider scale under the Moguls, this is unmistakable in the evolution of customs and conduct, fashions and festivals, in the very preparation of food and in social and household affairs. In the matter of dress, a new costume was evolved which shows hardly any trace of Arab or central Asian influence. That period also saw the growth of a new language which serves to this day as a medium of communication between Indians of different races and regions. In music and art, in sculpture and architecture, in social habits, life, and manners, the effects of the synthesis are visible to this day. Even as early as the time of Baber, the process of assimilation had gone so far that he could characterize it as a new and unique mode of life, a mode to which he gave the name of the "Hindustani way." Those who seek to boast today of the purity of Hindu or of Moslem culture in India are therefore ignorant of history or else they lack the capacity to understand the nature of historical processes.

INTELLECTUAL INFLUENCE

It is not possible in a short article to trace every phase of the new transformations and developments. Only a few aspects can be indicated, of which perhaps the most fundamental is the transformation in mental outlook and philosophy of life. It is impossible to separate today the different strands which constitute Indian culture. It is even difficult to say how much of the present Hindu philosophy of life is derived from the Vedas and the Upanishads and how much is the resultant of direct or indirect influences of Islam. It is equally difficult to differentiate between the contributions of Indian and Saracenic elements in the constitution of the mentality of Indian Moslems. The influence of India was not in fact confined to Indian Moslems, but affected the development of Moslem theology in Persia and Arabia as well. Buddhist modes of thought had penetrated as far west as Egypt, and there are scholars who find anticipations of the Sermon on the Mount in the earlier writings and edicts of Buddhism. Sufism has its foundation in the Koran, but it is clear that its development was influenced by Christianity and neo-Platonism, while its attempt to submerge the individual in the Absolute suggests the influence of Buddhist modes of thought.

Such intellectual influences are, however, always mutual. We find traces of Moslem influence in quarters where they can be least expected. Sankara is usually regarded as a product of purely Indian modes of thought, but even in his philosophical constructions, extraneous influences are not altogether absent. There are reasons for holding that he was influenced by the impact of new thoughts which came in the train of Islam. From the earliest times to the eighth century, changes in religious thought and developments in philosophy originated in northern India. Ancient traditions and new reforms flourished there side by side. The eighth century reveals a sudden transformation. The leadership of Indian thought goes down to the south. Sankara and Ramanuja, Nimbarditya and Madhavacharyya are all men of the Deccan. The rise and development of the Vaishnava and Saiva modes of thought are to be

found in this narrow tract in space and time. Political and social changes in the north cannot alone explain this sudden transformation. We must also take account of the fact that it was in the south that Islam first came into contact with Hinduism.

Long before the conquest of Sind by Muhammad bin Kasim, Arab traders had come into contact with the people of Travancore. This peaceful penetration went so far that the last of the Cheramon Perumal Kings of Malabar was converted to Islam and left his kingdom on a pilgrimage to Mecca. Kaladi, where Sankara was born, belonged to a small principality whose king also accepted Islam. There is no indication that these conversions were the result of military conquest. Nor is there any indication that the change of faith by the king resulted in any large-scale conversions among the people. Such conversions, however, indicate that Islam must have been a living influence, and as such, could not but affect an acute and sensitive intellect like Sankara.

The contact and conflict of the two modes of thought quickened new questionings in the Hindu mind. Social attitudes, religious faith, and even the Hindu philosophy of life were profoundly affected. The new philosophies which were born in that period have left a permanent impression on the Indian mind. They show one remarkable difference from the modes of thought which prevailed before the eighth century. The old conception of religious faith was characterized by moderation, intellectual subtlety, and a contemplative pantheism. The mentality which we find emerging in the south is simple, eager, and full of emotional explosiveness. The progressive simplification of faith and increasing emphasis on the unity of God cannot be developments due to internal causes alone. The elements taken singly may be derived from ancient systems but in their composition and emphasis they exhibit a remarkable approximation to the Islamic outlook on life. Sankara's absolute monism rejects the external world as mere illusion. At first sight, this is completely alien to Islam's acceptance of the empirical universe. But at the same time his passionate insistence upon the unity of the Brahman reveals a secret source of affinity with Islam which is as strange as it is interesting.

ARCHITECTURAL INFLUENCE

The development of architecture in northern India in the Middle Ages offers another evidence of synthesis between ancient Indian and Saracenic styles. Instances of a purely Hindu style are to be found mainly in the south. The temples of southern India exhale an atmosphere entirely different from that of the north. This does not imply that there is any single style which can be characterized as northern or southern. It only implies that, in spite of differences and variations, the southern structures show a basic identity in conception and execution. This is equally true of the structures of the north, and differentiates them from similar architectural experiments in other countries of the world. The palaces, forts, and tombs of northern India during the Middle Ages show traces of Persian influence, but in spite of their similarity to Persian models, they reveal features that are alien to the ideals of Persian architecture. Though influenced deeply by Persian tendencies, they have their basis in the traditions of ancient India.

In the temples of the south, it is the straight line that dominates. All elaboration is based on the composition of lines and angles. Another striking feature of this temple architecture is the exuberance of its sculptural decoration. Each pillar is carved out of solid rock and embellished with a hundred forms. The variety is so great that there is hardly the repetition of a single theme. In the famous temple at Cangeeverum there are about a thousand pillars. Not one pillar is a replica of any other. Even in the smaller temple at Simhachalam, the pillars are all of different forms and motifs. The aim of this architecture seems to be to overwhelm our minds through an abundance of forms and splendor.

The contrast with the architecture of the north is so glaring that it does not escape the merest amateur. Even the temples there have broken away from the domination of the straight line. They exhibit a composition of the arch and the circle which subtly transforms the atmosphere. It is true that domes are rare, but even the turrets are different from those of the south. Those familiar only with the north cannot fully realize this. To them, the difference between the temple and the mosque seems more prominent than their underlying similarity. But to those who have seen only the temples of the south, all architecture of the north seems imbued with a subtle aroma of the mosque. This is not surprising, for all the finest structures of the north are informed by a spirit of harmony and fusion of the two styles.

Economy of sculpture and other decoration in the north is not a mere accident. The emphasis is on symmetry of lines and balancing of masses. Volumes have been so disposed as to create an impression of uniformity. Architecture in the north centers around a basic idea. Its value lies in harmony of structural achievement rather than in the splendor and variety of the constituent units. It is remarkable that this synthesis could be achieved even in the case of temple architecture. Though foreign influences may be adopted in other spheres, the usual tendency is to resist its application to the religious field. The fact that Hindu architectural genius could even in the religious field adapt Moslem ideals to its own purposes is evidence of its strength and vitality.

The influence was not and in fact could not be one-sided. While Saracenic styles influenced old Indian traditions, they in their turn profoundly affected the character of Moslem architecture in India. One of the main characteristics of Moslem architecture was its simplicity and severity. Line meets line with an austere grace in which there is hardly any room for superfluous decoration. Even where there are embellishments, these take the form of geometrical patterns or calligraphy raised to a fine art. In the architecture of northern India this general principle undergoes an almost revolutionary change. Perfect fusion of the Saracenic emphasis on harmony and form with the Indian emphasis on splendor and decoration has given us miracles of architecture like the Taj Mahal. More often the two systems have not been perfectly fused, and we find domination of the one or the other style. Architectural curiosities like Fatehpur Sikri or the Itmaddoula remain as unfulfilled experiments in synthesis. One need not refer to specific instances of Hindu patterns incorporated in the Moslem architecture of the period. The lotus and the pitcher supply a constant motif in the constructions of the Hindu period, but we find its skillful use in the tombs of Moslem kings as well.

INFLUENCE ON POETRY

The contact of Hindu and Moslem cultures in the south was responsible for the birth of a new philosophy. It is not surprising that the impact should first be felt in the sphere of the intellect. First acquaintance attracts the intellect more than the heart. Truths accepted by the intellect do not immediately influence behavior. The time lag between intellectual acceptance and emotional assimilation has often been noticed. But once a truth sinks into the consciousness, it begins to mold our emotions as well, and to give rise to new experiments in art. Because this requires time, we find that Indo-Saracenic art flourished mainly in the north.

We have pointed to the synthesis of Hindu and Moslem models in the achievements of Indian architecture. The Vaishnava songs and lyrics of Bengal offer another instance of such assimilation and synthesis. The elements for the emergence of a successful art were present in Bengal from early times. The advent of Islam acted as a catalytic agent which fused the elements together and brought Vaishnava poetry to its birth.

The Vaishnava poetry of Bengal is a miracle of synthesis, for it fused an active mentality with a passive philosophy of illusion. The spirituality which is often regarded as a distinguishing feature of Hindu mentality has in it an element of passivity and quiescence. There are few records today of the magnificence and splendor of Hindu India. The story of Indian expansion and colonial conquests is today a mere legend. The manifold activities of the human mind which characterized the life of ancient India were reduced to a dull ascetic gray by the time of the Middle Ages. Emphasis upon the Absolute made men indifferent to inequalities in the material world. In consequence, the indignities of the individual in empirical life could be ignored or explained away as mere illusions which would disappear on the cessation of this transitory life.

The impact of Islam shook this asceticism to its very foundations. Islam was essentially a religion centered on this world, and gave equal value to empirical and transcendental considerations. It brought a dynamic message of social democracy that few systems of existing political or social civilization could resist. It taught men that equality and fraternity must be realized in the life of day to day, and could not be relegated to some remote and unearthly future. The oppressed and destitute responded to that appeal everywhere and co-operated in its victories. It was this message of freedom for the individual in his daily life that made its advance so swift and irresistible.

In the Vaishnava poetry of Bengal we find an artistic representation of this conflict and its resolution. Its central motif is love and its attitude towards love is an exquisite expression of the synthesis achieved. Love is not merely a physical or mental state. Still less is it a mere sensation. Perhaps it can be best understood as an adventure of the individual into the uncharted future from the certainties of his past and present. Activity is the essence of such adventure, and the bolder the adventure, the purer the activity. Such activity frees itself from the bonds of purpose and is an expression of the sheer joy of life. The manifestation of unpurposive energy constitutes pure play.

We find that all analyses of love finally lead to its conception as a mode of play. In Vaishnava poetry this is expressed as *Leela*, but in the *Leela* of Vaishnava

poetry we still find traces of the old passivity of mind. Throughout the variations of emotion and sentiment, the poet is always a passive object of love. Nowhere is he the lover. Everywhere he is the beloved. On the level of common experience, the quest of the human soul for the infinite must take this form. From the point of view of common sense, this quest is, however, symbolic and possesses merely metaphorical validity. When the quest ceases to be an illusion and becomes the sole reality of the soul, we reach a level of experience where the distinction of subject and object is lost. It is no longer tied down to the common-sense conception of the human soul as dependent and limited. At such levels the difference between the love and the beloved disappears. In Vaishnava poetry, the distinction persists. This shows that the philosophy of illusion has not been completely overcome. On the other hand, the emphasis is on love as *Leela*, or pure activity. This shows that the fatalistic conception of reality has been shaken to its very foundations.

This fusion seems to be the result of synthesis between the Hindu and the Moslem outlook on life. All manifestations of the Indian spirit in the pre-Moslem period are tinged with the note of maya. Such a conception allows little scope for the development of individuality. The consciousness of difference between individuals is faint. The philosophy of maya explains why men suffered the inequalities and indignities of life so patiently. Belief in rebirth is also a direct consequence of this attitude of mind. On the one hand, the theory of rebirth denies progress; and on the other, through its emphasis on the unity and equality of all life, it pares away empirical inequalities. A conception which seeks to give the same value to insects and birds and beasts and men cannot, consistently with its assumptions, emphasize either progress or human superiority. On the other hand, Islam insisted upon the excellence of man and declared him to be the lord of creation. He is subject only to the governance of God. This is echoed in the words of the Vaishnava poet, who proclaims that man is the highest truth and there is nothing higher than realization of this fact.

INFLUENCE ON MUSIC AND PAINTING

Some of the aspects of Islamic culture and its influence on Indian life and thought have been indicated above. The account must from the very nature of the case remain incomplete. When two powerful meet, there is no question of the absorption of the one in the other. The two streams join to create a new form, and their separate contributions can hardly be distinguished. The same thing happens when two living organisms unite. A new organism is born which shares in the characteristics of the parents and is yet a unique individual. Interpenetration is complete, so that no element can remain unchanged in the new synthesis.

This is what largely happened in the evolution of a new culture in India. Old values were transmitted and even ancient themes were informed with a new spirit. We have referred to the changes in intellectual outlook and the achievements in the fields of architecture and poetry. These, however, touch only the fringe of the problem, for the same story of synthesis is repeated in every sphere of life. The growth of a new language is by itself enough to occupy the attention of a lifetime, while the subtle changes in the tone and temper of Indian painting and music form an equally fascinating theme. The music of ancient India reminds one at every step of

the temples of the south. The same solidity of structure and profusion of details stamp it with an unmistakable identity. The music of the north offers a sharp contrast. The solidity is replaced by an airy grace. Wealth of details gives place to spacing and harmony. The same contrast and synthesis are seen in the world of painting. The frescoes of Ajanta preserve the memory of an attempt to paint in timelessness. An amazing plasticity of form conceals the movement away from the solid and the tangible. The change to the sharp precision of Mogul and Rajput painting is almost dialectical. Devoid of the intense aspiration of ancient Indian painting, this world of courtly manners shows an innate lyricism always mindful of decorum. The abstraction of ancient Indian art arises out of the stretching of feeling beyond human capacity. In Mogul and Rajput painting, the abstractness is the result of simplification and control. The one is ecstatic, the other static, but even its staticness is informed by the memory of former ecstasy.

There are in art two different and to some extent contrary tendencies. One aims at decoration, prolixity, and splendor. The other is dominated by the ideal of simplicity, economy, and severity. The one seeks to overwhelm us by the profusion of form and the excess of its material wealth. The other attempts to influence us through economy of material and the refinement of its modes of expression. The former carries aesthetic experiment to its ultimate limits and seeks to express everything. The latter leaves the greater portion unsaid and conveys its message through the barest hints and suggestions. The former expresses itself through the wealth of its achievement, the latter through the creation of a background where our imagination finds free play.

These two modes of art express contrasted ideals of life. We find perfection of art where the rival streams of romantic and classical tendency are held in an exquisite balance. We find a new excellence in life where the mentalities represented by these ideals fuse to create a new civilization and culture. The Indian and Saracenic styles supplied complementary elements whose fusion created not only great art but a deep and abiding culture. The process of synthesis is not yet over. With the condensation of space and time, it will lead to still higher achievements of the human mind.

Humayun Kabir, M. A. (Oxon), is a professor at Calcutta University. As a Member of the Bengal Legislative Council (Upper House) and as one of the leaders of the Indian Student Movement as well as the Krishak Proja or Peasant Movement in Bengal, he is keenly interested in public affairs. He is editor of Chaturanga, a well-known quarterly in Bengali, and is a writer in verse and prose.

Education in British India

BY SYAMA PRASAD MOOKERJEE

THE present system of education in India was introduced in the early years of the nineteenth century as one distinct and apart from the indigenous system which was already in existence, consisting of both higher and elementary institutions. The indigenous educational institutions were indeed no better nor much worse off than similar contemporary institutions in the West. A foreign observer speaking of them in the thirties of the last century said : "My recollections of the village schools of Scotland do not enable me to pronounce that the instruction given in them has a more direct bearing upon the daily interests of life than that which I find given or professed to be given in the humbler village schools of Bengal."

But widely prevalent as the indigenous system was, it was fast going into decay owing to various economic and political forces, chief among which were the growing poverty of the people and the withdrawal of state patronage which followed the change of government. In reaction to the external forces which it could not control, the indigenous system became more and more conservative and it lacked the progressiveness which is the sign of a growing and organic system.

TWO ALTERNATIVES

In those early days two courses were open to those officially responsible for the education of the people. They might have utilized the widespread indigenous system after infusing new life into it, reconstructing and reorganizing it wherever necessary and making it the vehicle of new ideas and ideals ; or they might have created an altogether new system, unconnected with the indigenous one, and used it for the education of the people of this country. By an irony of fate they adopted the latter course. Thus was evolved a system which was largely disassociated from the cultural and educational traditions of the people and which made an alien language the vehicle of new ideas that were expected to regenerate the people of India.

It is idle to speculate what course Indian education would have taken if the early educational administrators had chosen the former of the two alternatives. But it cannot be denied that by adopting the latter they imposed upon themselves a task the magnitude of which perhaps they failed to visualize. And they also lost a splendid opportunity to build what might have been a truly national system of education—a system democratic in its foundation and based on the language and culture of the people. India has, then, about 700,000 villages, and in the early years of British rule many of these villages had elementary schools to which I have already referred. By neglecting them and allowing them to decay, and by deciding to set up a parallel system of public instruction, the Government set for itself a stupendous task which even after a century remains unfinished. No doubt at a later stage attempts were made to use them, but it was too late; they were then beyond revival.

It is well known that the fateful decision to introduce an altogether new system of education was strengthened by the fact that the Government wanted to train a set of Indians who could occupy subordinate offices under the Government and help in

the administration of the country, thereby keeping down the cost of administration. Thus it was that the present system of education came to be prized not for its cultural values but for the economic return it brought.

EDUCATION FOR UPPER CLASSES ONLY

It will help us to understand the problems of Indian education if we keep in mind one or two other principles involved in this decision. The decision was based on a class conception of education. The new education was to be confined to the upper classes and was to filter down in time to the masses. This was the famous "filtration theory" on the basis of which the present system stands. Thus it came about that the education of the masses was left unheeded, the attention of the Government being riveted on the education of the handful of men belonging to the upper classes of Indian society. Government schools and colleges were opened in important towns and district headquarters.

In 1854 it was further decided to open universities in the three Presidency towns of Calcutta, Bombay, and Madras. The first university of the new type was actually founded in 1857 in Calcutta, followed by Madras and Bombay universities in the same year. Within a quarter of a century it was found that they could hardly cope with the demands of an ever widening system of secondary education, so Punjab and Allahabad universities were created. Arts colleges sprang up in important centres of population, mainly if not wholly in cities. A few professional colleges for medical, engineering, and legal education were founded, and they sent out graduates in medicine, engineering, and law. But the most rapid progress was made in the field of high school education which continued to be imparted through the medium of English. It can be ascribed only to the economic value of a knowledge of English, to which I have already referred.

A passing mark in the entrance or matriculation examination not only opened the portals of the university but also assured a job, not perhaps very lucrative, but all the same a safe one, for one who did not entertain high ambition in life. Others, more ambitious and energetic, would go for higher examinations and would hope for better jobs. The main thing was how to pass an examination and to obtain a certificate showing the extent of mastery of English, a passport to service. Criticizing the system, Lord Curzon said: "Four villages out of five are without a school; three boys out of four grow up without education and only one girl in forty attends any kind of school." Further, he felt that higher education was being pursued too exclusively with a view to securing jobs, excessive prominence was being given to examinations, the courses were too literary in character and they failed to vitalize the life of students; and in the pursuit of English education the cultivation of the vernacular had been sadly neglected.

These were, according to Lord Curzon, the outstanding defects of the present system. He also clearly realized that wider extension of education in India and improvement of its quality were chiefly matters of increased expenditure. Regarding primary education he candidly confessed that it had hitherto received insufficient attention and an inadequate share of the public funds.

As a result of the political discontent which began to appear, the Government viewed with disfavour the influence of non-official elements over the youth of the nation

and consistent and persistent attempts were therefore made to explain the sphere of official bureaucratic influence in the field of education. One wonders if there was not already too much official influence. Until a few years ago all the higher posts in education all over the country were held by officials recruited in England, and most if not all of them, were British. All directors of public instruction were Europeans, as were almost all inspectors and professors in government colleges. The presence of these foreigners, who mainly guided the education policy of the Government, was responsible for certain defects in the system. Naturally they could not be expected to pay serious attention to the needs of mass education or grow enthusiastic over the idea of imparting education through the languages of the people. It was much easier for them to teach in English, and when various factors—mainly economic—had contributed to rouse enthusiasm among Indians themselves for the study of English there was no reason why the medium of instruction should be changed.

Incidentally, a personnel so composed could not but be an expensive affair, and so long as the system of recruitment could not be changed it was not possible to bring down the expenses of postprimary education.

It should, however, be admitted that even though the educational system was defective, the movement for political freedom originated with a group of Indians educated through the Indo-British system and liberalized by doctrines of Western democracy and liberty. India had become politically conscious and its first reaction showed itself in a demand for national education. National education would imply a type of education based on the culture of the people and imparted through the medium of the languages they spoke. It would also include a planned system of technological education. It would ultimately lead to the development of national industries. And the first *sine qua non* of a truly national system of education would be free and compulsory education of the masses. In 1911 the late Gopal Krishna Gokhale, the great Indian leader, tried to induce legislation which would permit the introduction of compulsory primary education after certain specific conditions had been fulfilled. It was a purely permissive measure, but it was opposed by the Government and Gokhale's efforts were in vain.

It was not until 1921 that such legislation was enacted. One of the first steps that the provincial legislatures took, when they came into existence in 1921 with the introduction of reforms and were endowed with some measure of autonomy, was to pass acts empowering the introduction of compulsory primary education, at first in urban and later in rural areas. But if these legislatures were free to pass laws, they were not given the freedom of purse, and the result was that education of the masses continued to make slow progress. Perhaps it would not be out of place to mention in this connection the fact that some of the native states had introduced compulsory primary education from the early years of the present century and the experiment had proved greatly successful. But in British India the Government could not even think of permitting an experiment along this line.

TECHNICAL EDUCATION

Technical education too met with the fate of primary education. Though the state required the services of a number of engineers and overseers it did not contemplate any large-scale industrialization of the country. On the contrary, against the

verdict of history, it was held that India was and had always been a predominantly agricultural country; and agriculture should remain her great, if not the sole, industry. Under the circumstances, technical education could hardly show any real progress.

Related to the problem of technical education was the problem of organizing and planning the industrial life of the people. Unless trade, commerce, and industries were co-ordinated, mere provision of technical education would be ineffective. It was clearly the duty of the state to bring about the desired co-ordination and correlation, but the state was apathetic; under the circumstances, whatever little technical education was provided proved ineffective. There were, however, individual industrialists like the great Tatas, and through their efforts technical education did make some headway, but that too in certain directions only.

Meanwhile the stereotyped education continued to show progress. More high schools were founded, more students entered colleges and universities, which in the absence of other avenues remained practically the only field where students could go after the completion of the high school course. More universities were founded and they sent out year after year larger and larger numbers of graduates. Until a few years ago the saturation point had not been reached and students who came out in large numbers from high schools, colleges, and universities readily found jobs with the Government or with commercial houses which continued to expand their business. A few also entered the independent professions. Many of these young men came from villages, but they later settled in the cities and swelled the ranks of a fast-growing middle class. The countryside was thus being slowly and steadily drained of intelligent elements, leading to its further impoverishment.

STATUS OF POSTGRADUATE WORK

A significant development in the field of university education in this period now deserves our attention. Up to 1912 there were only five universities in India, namely: Calcutta, Bombay, Madras, Punjab, and Allahabad. All of these had been modeled after the University of London and all of them were, strictly speaking, examining universities and not teaching universities; tutorial work was done solely in the affiliated colleges, the universities confining themselves to the task of prescribing the syllabus and holding the examinations. Postgraduate work was also confined to the colleges, and as most of them were not properly equipped for such work it was natural that the quality of postgraduate work was not of a very high order. Thus the universities failed to contribute to the advancement of knowledge, which was surely one of their main functions.

It was at this stage that the late Sir Asutosh Mookerjee introduced his momentous reforms in Calcutta University—reforms which inspired similar activities elsewhere. By creating the postgraduate department all postgraduate teaching was concentrated in the university and this transformed an examining university into a teaching university of the highest type. That the department has amply fulfilled the expectation of its founder is a matter of history. It has trained a band of eminent research workers in different fields of knowledge, men who have given the lie to the charge that Indians are incapable of higher research work.

Another important development in the field of university education has been the creation of university residential universities after the older English universities. The Benares Hindu University was the first university of this type ; but others like Aligarh University followed, though soon it came to be realized that in a poor country like India such universities would primarily lead to raising the cost of higher education. The universities established in recent years have generally combined both the teaching and examining functions. In 1917-19 the Calcutta University Commission, under the chairmanship of Sir Michael Sadler, dealt with problems of educational reform at both the secondary and the university levels, and its recommendations stimulated a healthy and vigorous expansion of both collegiate and university studies in all parts of India. Again, Tagore's international university at Santiniketan, Bengal, has been a great experiment in the sphere of Indian education. Devoid of all artificial influences, it has tried to represent correctly the Indian mind and genius and has made possible a real contact of the best elements of Eastern and Western culture.

INDIAN LANGUAGES REPLACE ENGLISH

Another important measure of reform deserving our attention was introduced in this period. It related to the development of Indian languages and their adoption as the media of instruction in the secondary stage. We owe this reform mainly to the efforts of Dr. Rabindranath Tagore, Sir Akbar Hydari, Sir Asutosh Mookerjee, and a few others who for many years had been advocating this change; but nothing could be done until some among them were so placed as to be able to translate these ideas into action. Twenty-three years ago Hindi and Bengali were placed on the list of subjects for the highest university examination in Calcutta. In 1934 Bengali was also made the medium of instruction at the high school level. The Benares Hindu University, too, under the inspiring leadership of its founder, Pandit MadanMohan Malaviya, has introduced the mother tongue as the medium, and gradually the languages of the people are being given their rightful place in the educational system of the country.

Much progress has been achieved in the direction of fostering and developing Urdu in Hyderabad under the inspiring influence of the late Sir Akbar Hydari, whose recent death robbed India of one of her most distinguished sons. Yet much more remains to be done. In many parts English is still the medium of instruction ; and English continues as the sole medium all over India in the postmatriculation stage. India is the only country in the world which presents the curious spectacle of young pupils learning in school through a foreign tongue which they can only imperfectly understand.

REFORMS SUGGESTED

I have already pointed out that until about twenty years ago the problem of absorbing the products of high schools and colleges had not become serious ; cases of vocational maladjustment no doubt occurred here and there, but such cases were not as frequent as they later became. However, as the number of graduates from these institutions increased, the problem became more and more acute. The number of men who after completing their education could not find suitable employment rapi-

dly increased and the problem became a serious menace to social and economic equilibrium. As usual, the existing system of education came in for a good deal of criticism. It was suggested that our educational system was responsible for this evil and that it should be thoroughly overhauled.

The basic reform suggested was that the different stages of general education should be rearranged and in the secondary stage a variety of courses—vocational prevocation, and general—should be provided. This provision would reduce the pressure of work (much of which under the present circumstances is wasteful) in the higher stages; it would remedy the narrow literary character of our educational system and also make it more closely related to the requirements of life. The above scheme, which was first suggested by the Indian Universities Conference in 1934, was later accepted by the Government Central Advisory Board of Education but it has not yet been put into operation anywhere. No reform in the sphere of education can by itself solve the problem of employment. It is a responsibility that the state has to undertake and it must properly co-ordinate the educational system with a well-planned national policy of economic and industrial revival.

Another scheme of reform came from a different quarter. In 1937 Mahatma Gandhi, presiding over an educational conference, suggested a scheme which was later elaborated and developed by a board of educationists and came to be known as the Wardha Scheme of basic education. The scheme proposes a seven years' course of education beginning at the age of seven. Education will be imparted through the medium of the mother tongue and there will be provision for training in a creative and productive craft around which all instruction (as far as possible in all subjects) shall center. Further, English will have no place in the curriculum, but Hindustani as the national language will be taught a compulsory subject in the upper grade. The scheme also lays a good deal of emphasis on social and co-operative education. On the whole, the scheme is not unlike the project method advocated by Dewey, Kilpatrick, and other American educationists of repute. In certain respects the syllabus of the Wardha Scheme is undoubtedly an improvement upon the existing syllabus in use in our schools.

The principles of the Wardha Scheme were accepted by the Government Central Advisory Board, and when the members of the Indian National Congress came to form ministries it was put into operation in some of the provinces of India; but as the Congress ministries soon resigned, the experiment on basic education, started under their auspices, was discontinued before anything significant could be achieved.

STUDENT ENROLLMENT

For a population of 400,000,000, serving an area of about 1,500,000 square miles there are in India eighteen universities with an enrollment of about 120,000. Three of these universities are situated in the native states. The universities are not all of the same type. Some are teaching, others affiliating, while a few others combine the two functions. Some universities undertake direct teaching work at the undergraduate levels, while others leave undergraduate work to the constituent and affiliated colleges. A few others leave all forms of teaching to the affiliated colleges.

The number of colleges is about 300. The majority of these are arts colleges. The number of professional colleges of all types (law, medicine, teaching agriculture, commerce, engineering, and technology) is about 80. In 1938-39 the number of graduates in the different faculties were as follows; 15,576 in arts, 2,592 in law, 756 in medicine, 326 in engineering, 1,893 in education, 715 in commerce, and 257 in agriculture.

There are in all about 3,500 high schools in the country, with a total enrollment of 1,174,000, including both boys and girls. Incidentally, girls contribute only 155,000 to the number. This is an instance of the disproportionate development of boys' and girls' education in this country.

In the secondary stage professional schools imparting vocational education are few in number. They enroll a negligible fraction of the total number of pupils at the secondary stage. In the whole of British India there are only 17 schools of art, 29 medical schools, fewer than a dozen engineering schools, and not even 20 agricultural schools. If we include all types of technical and industrial schools, their number will not come to a thousand.

In India there is another type of school, called the middle school which, in official returns is included among secondary schools. These in reality are nothing more than lengthened primary schools. The number of such middle schools in British India is about ten thousand and they show an enrollment of about 1,330,000. The course they offer is a continuation of the primary course and is taken advantage of by many who for reasons of poverty or otherwise cannot go to large schools and yet desire to continue their education for a year or two after the primary stage.

The number of primary schools in British India is a little over 187,000 and that of scholars at this stage of instruction about 11,000,000. The exact number of children of primary school age is not known, but it is estimated to be more than 40,000,000. The primary course extends generally over a period of four or five years. As primary education is neither compulsory nor free there is no rigidity about the age when a child enters a primary school. It depends upon the pleasure and economic condition of the parents and the facilities available. If there is a school nearby, if the parents can afford to spare the child, then he goes to school. It is not generally known that economic condition of the average India peasant is such that even the mite that a child may earn by looking after the cattle or some such work is a welcome addition to the family income. Of the seven hundred thousand villages, not even two hundred thousand can today boast of possessing schools for their children.

In this connection another significant fact should be mentioned. The majority of the scholars in the primary stage are found in the first two classes and only a fraction remain to complete the primary course. The main reason for this is premature withdrawal of pupils in the absence of compulsion. Poverty too is no mean factor. Primary education is not free, and even though the fees charged are not very high they are a distinct drain on the purse of the poor villager. As soon as a boy is big enough to help his father in the fields, or a girl is ready to give even partial relief to her mother, he or she is taken away from school. This results in

huge wastage of efforts and money and no satisfactory solution of this problem has yet been found.

Taking now all the different stages and types of instruction, we find that today in British India there are in all 230,546 institutions. The total number of scholars of all descriptions is about 14,500,000. On the basis of these figures we find that only 5.44 per cent of the entire population is receiving instruction today.

COST OF EDUCATION

An analysis of the expenditure on education in British India shows that the gross annual cost of maintaining the institutions described above is about 278,000,000 rupees; or roughly about \$93,000,000 of which government funds contribute 44 per cent and fees 26 per cent. The balance is covered by contributions, Local funds endowments, subscriptions, and other sources. In the university, collegiate, and high school stages fees contribute a greater share than government funds. This would prove that higher education mainly depends upon private contributions and that the drainage on the public exchequer on this account is not so heavy as is sometimes suggested.

We are now in a position to understand some of the fundamental problems of Indian education. In the course of my review I have already touched upon a few of these. It would appear from what I have said that our first problem is the provision for the education of the masses. The edifice of Indian education has practically no stable foundation. India is perhaps the only country in the world which has a fairly well-developed and extensive system of secondary and higher education without a correspondingly developed elementary system.

But the provision for compulsory education, whether basic or otherwise, means money and that money is not forthcoming. What Lord Curzon said forty years ago is true today. Both qualitative improvement and quantitative extension are matters of funds and, as in the past, money is even now not available. It is because of this fact that while provincial legislatures have passed laws providing for compulsory primary education, these acts could not be put into effect. Now that provincial autonomy is supposed to have been given, people outside India may wonder why this is so. They do not know that in spite of the so-called autonomy, the purse strings are held tight in the Center where there is no autonomy and where the old bureaucratic rule still holds its sway.

The Central authorities can always find money for various administrative purposes which may not be always consistent with national interests, but when it comes to education there is the eternal plea of lack of funds. For a country like India the amount spent on primary education is shamefully insufficient, and unless a national government fully conscious of the importance of education of the masses comes into power there is very little hope of improving the conditions of primary education.

At the secondary stage also our main problem is one of finance. For no multicurricular secondary course adapted to the various needs—intellectual and vocational—of the adolescent youth of the nation can be provided without an effective co-ordination between education on the one hand and trade and industry on the other. This is of vital importance to the nation, and a satisfactory solution of the problem of vocational maladjustment will depend on this question.

ESSENTIAL NEEDS

It has been suggested that the edifice of Indian education resembles a pyramid standing upon its apex. The implication is that we have too much of higher education. While it is perfectly true (as we have already stated) that we have too little of primary education it is absolutely wrong to suggest (as is sometimes done) that we have too much of higher education. Are eighteen universities and three hundred colleges (many of them very small indeed) too many for a country like ours? Or is the number of students in the higher stages of instruction disproportionate to the requirements of a country like India? In some quarters the suggestion has been made that higher education should be cut down to provide for primary education. Nothing can be more mischievous than this. India needs much more of primary education than she at present has, but she also needs more of secondary and higher education for her national well-being.

In this article I have not touched upon the problem of education of our women, not because it is not as important as other types of education, but because it is such a big problem that it justifies separate treatment. It is a tragic fact of our national life that we have not provided ample facilities for the education of our women. At one time prejudices might have stood in the way of sending girls to schools, but today they have broken down, and only lack of foresight and funds explain the disproportionate development of boys' and girls' education in this country. Incidentally, much used to be said at one time of the obstacles of purdah, but perhaps it is not well known that that purdah keeps only a section of Indian womanhood in seclusion and it is not as widely prevalent as it is sometimes made out to be. The Women's University at Poona is rapidly gaining in efficiency and popularity and is an indication of the great demand for the spread of education among India women.

In India we are today making perhaps one of the most colossal experiments in national transformation. And unless we can educate the masses, the experiment cannot succeed. Education of the masses includes not only a program of compulsory primary education but also an extensive system of adult education. Democracy cannot function or develop without an educated electorate. But where is the provision for such education? In the whole of India there are, according to the latest official returns, only 4,603 schools for adults.

I have pointed out some of the fundamental defects of our present system of education. In the postwar social reconstruction, the first task before Indian statesmen will be to reconstruct the entire system and set it on a new basis so that it may help in the creation of a better and more stable social order in which men will enjoy the fourfold freedom which, as has been rightly pointed out by President Roosevelt, alone makes life worth living.

But before we can talk of postwar educational reconstruction we must win the war, not only for ourselves but for the sake of our children, for the sake of ideals for which we stand. We must win the war so that there may be freedom and democracy in the world. It is necessary that India's resources be fully utilized for stabilizing India's national defence. We must harness all available sources of energy for this purpose. Any wastage anywhere must be stopped whether it is wastage of raw material or manpower.

I have pointed out elsewhere how industries could not develop properly for want of state patronage and state planning. And yet India is rich in raw materials and there are many Indian students who, in spite of adverse circumstances, have trained themselves in different branches of technology in India and abroad; more such students are being trained in the universities and laboratories, some of which have been started by the Government under pressure of circumstances. But due to lack of planning and opportunities we cannot utilize their services as fully as we should. This is a problem which calls urgently for solution. If we can solve it satisfactorily, we can, I am sure, most effectively make our contribution toward winning the war and thus lay a sure foundation for a happier and better world.

Syama Prasad Mookerjee, Litt.D., LL.D., is the Working President of the All-India Hindu Mahasabha, and was Finance Minister of the Government of Bengal from 1941 to 1942. His positions in the educational field include: Fellow, Calcutta University since 1942; president, Post-Graduate Councils in Arts and Science of Calcutta University; vice-president, Royal Asiatic Society of Bengal; and member and sometime chairman of the Inter-University Board. He is a trustee of the Indian Museum. He was vice-chancellor of Calcutta University from 1934 to 1938, and has represented that institution on the Bengal Legislative Council and Assembly since 1929.

Scientific Researches

BY C. V. RAMAN

THE ancient glory of India as a center of thought and culture is being revived today by the work of her leaders in the field of science. The achievements of these men have furnished proof—if proof were needed—that the originality and the productivity of the Indian mind have survived the vicissitudes of Indian history with undiminished vigor. The story of this renaissance is well worth telling, for it is the story of a subject nation seeking to express itself. The magnitude and the significance of Indian scientific achievement can be fully understood only when viewed against a background of knowledge of the Indian situation.

The quality of the individual investigator is the prime factor in all outstanding scientific achievement; it may enable him to work his way to success through the most discouraging circumstances. Those who live in an atmosphere of freedom can scarcely understand the enormous difficulties which beset the path of the would-be man of science in India. This is illustrated by the writer's own experience when he found himself shut out by the policy of the British administration from a scientific career and was forced to earn his daily bread as an auditor of accounts for over ten years! Nor is it easy for those who are familiar with the magnificently equipped laboratories of Europe and America to understand what it means to work in poverty-stricken institutions lacking the most elementary needs of scientific research. Circumstances of this kind should not be overlooked by those who seek to appraise the achievements of Indian science at their true value.

WORK IN SPECIFIC FIELDS

The Nobel awards in science made each year by the Swedish Academy of Sciences at Stockholm are intended to be a recognition of meritorious scientific achievement. Their prestige stands so high that they possess a national significance to the country receiving the award. It is from this standpoint that all Indians view the award of the prize for physics made to the present writer in 1930—the first for any branch of science to be received by any Asiatic. It is in the same spirit also that the writer's countrymen have acclaimed the many other marks of international recognition and appreciation which his work has received. Special mention may be made here of the recent awards from the United States of the Franklin Medal and of the Honorary Fellowship of the Optical Society of America, as well as of the publication by the American Chemical Society of a monograph by Dr. Hibben running to 542 pages and entitled *The Raman Effect and its Chemical Applications*.

The originality of the Indian mind and its capacity for abstract thought are aptly illustrated by the career of the young Indian mathematician, the late Mr. Srinivasa Ramanujan, whose achievements and early death recall those of the famous Norwegian mathematician Abel. Like Abel, Ramanujan had to struggle against the bitterest poverty and apathy, and triumphed over them, only to be struck down by a fell disease and die a premature death. In the few years which were given to Ramanujan for his life and activity, he produced a record of work which showed him to be the equal of the greatest mathematicians of the nineteenth century in intellectual power and originality.

The lack of opportunities in India for scientific workers is forcibly illustrated by the career of S. Chandrasekhar, now associate professor of astrophysics at the Yerkes Observatory of the Chicago University. Chandrasekhar's contributions to astronomy and his book entitled *An Introduction to the Study of Stellar Structure* are familiar to all lovers of this grandest of sciences. Chandrasekhar's love of knowledge and the opportunities which America affords for its pursuit in his chosen field have taken him far from his own country. India is happy to regard him as her intellectual ambassador who stands worthily in the line of succession from her astronomers in past ages.

The present writer has labored for a quarter of a century to build up an active school of physics in India. Many of his former collaborators have since made their mark in widely different branches of the subject. The work of K. S. Krishnan on crystal physics and crystal magnetism has greatly enriched these fields of knowledge. His namesake, R. S. Krishnan, has opened up new vistas of research in a field of great scientific and technical interest, namely, the optical behavior of colloids. An active school of meteorology and geophysics is at work today, led by K. R. Ramanathan in upper air research and terrestrial magnetism, by Sudhansukumar Banerjee in seismology, by L. A. Ramdas in agricultural meteorology, and by Vaidyanathan in soil physic. S. K. Mitra, S. Bhagavantam and S. Ramchandra Rao have now independent school of their own in physics, working at wireless research, spectroscopy, and magnetism respectively at the Calcutta, Andhra, and Annamalai universities. Bidhubhushan Ray at Calcutta, C. S. Venkateswaran at Bangalore,

and Kedareswar Banerji at Dacca specialize in X-ray research, while R. F. Ghosh at Allahabad is interested in practical acoustics.

Mathematical studies, both pure and applied, claim many votaries in India. Ramanujan has had some not unworthy successors, as for instance Vijayaraghavan at Dacca, Vaidyanathaswamy at Lahore, and K. S. K. Iyengar and Madhava Rao at Bangalore. Statistical science is well represented by P. C. Mahalanobis and his school at Calcutta. In mathematical physics, Meghnad Saha at Calcutta, Satyendra Nath Bose at Dacca, and H. J. Bhabha at Bangalore have achieved great reputations. Saha's theory of ionization in stellar atmospheres, the Bose-Einstein statistics of atomic particles, and Bhabha's cascade theory cosmic ray showers are indeed familiar to all students of mathematical physics. The theoretical work of Nagendra Nath on the diffraction of light by ulerasonic waves is well known to all specialists in acoustics.

Chemical research in India has not had the same resounding successes as mathematics and physics, but is however, well represented by numerous active votaries. The outstanding name in the field of plant chemistry is that of T. R. Seshadri, who, with the collaborators, has built up a great school of organic chemical research at Andhra University and has isolated many new organic chemicals from Indian plants. In physical chemistry, S. S. Bhatanagar has been the leading Indian worker and has published a treatise dealing with the chemical aspects of magnetism. Colloid chemistry is a favorite field of research in India, the work of J. N. Mukerjee on its application to soil science being perhaps the best known.

The leader among Indian biologists is Birbal Sahni of Lucknow whose special field is paleontology, or the study of ancient plant life as recorded in the rocks of the earth's crust. He heads an active school of research in this subject and has himself contributed notably to the development of new techniques of study to the elucidation of India's geological history. Deserving of special mention is the successful work of T. S. Venkataraman in breeding new and commercially important types of sugar cane, and of K. Ramiah in the production of new and improved strains of rice. Indians have also made notable contributions medical research, best-known of which is the success of Upendranath Brahmachari in combating kala azar with the aid of synthetic organic-antimonial preparations. Pioneer work in the field of Indian anthropology has been accomplished by Ananthakrishnier and by Sarat Chandra Roy, working in South and North India respectively.

SCIENCE AND NATIONALISM

British rule in India goes back to the second half of the eighteenth century, and the introduction of education of the Western type to the first of the nineteenth. There is thus a gap of some eighty years between the beginnings of Western education and the renaissance of scientific research in India. To those familiar with the achievements of Hindu thought and culture in pre-British days in diverse fields such as mathematics, astronomy, metallurgy, medicine, and other branches of pure and applied science, this time lag in a fresh manifestation of India's natural bent of mind toward scientific and philosophic thought may seem rather surprising. The mystery disappears when it is realized that the scientific renaissance of India is an integral

part of the vigorous nationalist movement which has been the principal feature of life in India during the past thirty years. This movement has found expression in different spheres, e. g., art, literature, education, and religious and social reform, as well as the desire for political freedom. It was inevitable that the best minds of India should be conscious of the cultural heritage of their country and should seek to demonstrate that India could once again impress the world by the wealth of her intellectual achievements. Consciously or unconsciously nationalist mentality has been motive power which has created the desire and furnished the opportunities for India's self expression in the field of science during these thirty years. This becomes evident when we examine the history of this development in detail.

INDIANS EXCLUDED FROM OPPORTUNITIES

It is not suggested that the nineteenth century was altogether a barren period for science in India. On the contrary, the needs of administration and the influence of the Royal Society of London led to the creation of a great number of scientific departments under the Government of India, including especially the Trigonometrical Survey of India, the Geological Survey, the Department of Meteorology, the Botanical Survey, the Imperial Forest Service, and the Indian Medical Service. The operations of these services in the territories of the Indian Empire naturally afforded opportunities for research work of high value. The late Lord Rutherford, in an address which he prepared shortly before his death but did not live to deliver, referred with pardonable pride to the achievements of some of the British officials who held positions in these services.

It is unnecessary, however, to traverse the same ground here, for the simple reason that these services were without exception recruited in Great Britain, and were to all intents and purposes barred against the entry of Indian talent. Indeed, it was a recognized principle in the working of the imperial departments that Indians were to be regarded as unsuitable for any positions except those of a strictly subordinate character which left no room for the exercise of personal ability or initiative. The same policy was pursued even in regard to the recruitment of the teaching staff of the colleges established and maintained by the Government in the principal cities of India. Even so, there were not lacking a few Indians who seized such opportunities as were available to them for accomplishing useful work. The names of J. C. Bose and P. C. Ray, who were on the teaching staff of the Presidency Colleges at Calcutta, deserve mention in this connection.

The three universities of Calcutta, Madras, and Bombay were the first to be established in India under British rule, and were followed later by universities at Allahabad and Lahore. Their activities were confined to the formal affiliation of the existing colleges with the university and the conduct of the routine examinations for the award of degrees and diplomas. The colleges were controlled in their activities by the syllabuses laid down by the universities, while these were in their turn controlled by nominated British officials, Indian opinion counting for little even in academic matters. The nervousness left in the British official mind by the unsuccessful Indian rebellion in the middle of the nineteenth century induced a strict control and limitation of the teaching activities on subjects having a possible

military value, e. g., engineering and chemistry. The influence of powerful British interests which desired that India should be a producer of raw products and a consumer of British manufactures also tended in the same direction, namely, that of restricting engineering and scientific education in India to the minimum necessary for carrying on the British administration. It was scarcely surprising in these circumstances that in respect of the real functions of a university, namely, the promotion of research and the creation of a body of trained Indians who could help in advancing the agricultural and industrial productivity of the country, these academic foundations were completely sterile.

SUCCESS DESPITE OPPOSITION

It is worth recording that even in the middle of the nineteenth century there were Indians who realized the key position occupied by scientific research in national welfare, and endeavored to make it possible for Indians to undertake such work. The name most deserving of honorable mention in this respect was Mahendra Lal Sircar, a medical practitioner of Calcutta who worked hard to establish in that city a scientific organization on the model of the Royal Institution of London. Owing to lack of financial support, however, his schemes for the establishment of research professorships to be held by Indians failed to materialize.

An Indian of a later generation who had come under Mahendra Lal Sircar's influence, however, achieved better success. Asutosh Mookerjee was an able lawyer (later a Judge) who, by his personality and political acumen, had broken the power of the official party in the Calcutta University and secured control of that organization. He made good use of the power thus secured by inducing two wealthy lawyers of Calcutta to establish a group of chairs for research in various scientific subjects in the university. The intense feeling in the public mind created by the exclusion of Indians from the higher educational posts in the official services was reflected in the terms of these endowments, which expressly stipulated that the chairs should be held exclusively by Indians of pure Asiatic blood.

The attitude with which the British officials in India regarded this development is indicated by a few facts which deserve mention here. On March 30, 1914, Asutosh Mookerjee laid the foundation stone of the building in which the newly appointed professors were to work, and on the following day he was relieved of his official position as Vice-Chancellor of the Calcutta University and thereby deprived of the opportunity of advancing the objects of the foundation to the fullest extent. The Government of India also declined to lend the services of the present writer, who was then in their employ and had been chosen for the newly endowed Professorship of Physics in the university. These official frowns, however, did not succeed in suppressing the new movement. Indeed, Asutosh Mookerjee, before his death in 1925, had the satisfaction of seeing his schemes for the promotion of scientific research by Indian bear rich fruit.

The growing strength of the Indian nationalist movement also resulted in various other developments in the field of education. A particularly notable result of the demands made by Indian public opinion for enlargement of educational opportunities was the establishment of numerous new universities in various parts

of the country in the second and third decades of the present century. Some of these were colleges already in existence, which were invested with the titular dignity of universities. Others, e. g., the Hindu University of Benares and the Andhra University of Waltair, were completely new foundations, inspired by new ideas and ideals. The facilities for advanced scientific study and research available to Indians were thereby increased, though it must be said not to any very great extent. Indeed, the multiplication of universities has often meant only a multiplication in the number of examining bodies and in the volume of academic duties of a routine character demanding attention. The time and energy of the staff available for research have thereby been reduced to the narrowest limits. The funds available for the promotion of research have also, in the majority of these foundations, been most inadequate. The factor which has prevented the new universities from degenerating into complete sterility in these circumstances has been the personal enthusiasm and energy of individual Indians holding chairs who have risen above the difficulties of their position.

HANDICAPS TO PROGRESS

The intensity of the public feeling against the reservation of the higher services for Europeans also compelled the imperial and provincial governments during these years gradually to relax this policy in regard to the services not considered essential for the maintenance of British power. Among the services thus opened to Indians were the higher teaching posts in the government colleges. The appointments made in pursuance of the new policy were, however, in many cases, extremely unfortunate. Men who had held subordinate positions were pushed up into first-appointments on the score of their length of service, without any regard to their academic attainments. The unsatisfactory results of such promotions are writ large for anyone to see in the intellectual sterility of many of the government colleges in India, and indeed also of those colleges which were incorporated as universities without changes in staff. It must also be pointed out that the considerations which govern recruitment to first-class teaching posts in government service even in private colleges today are highly prejudicial to the interests of research. The community to which the candidate belongs, his record at sports, and his political affiliations weigh heavily, while any leanings towards research are usually regarded as a disqualification. It is remarkable that in spite of these handicaps, some few Indians of ability have found their way into these colleges and are contributing their quota to the scientific output of India.

A few words might also appropriately be said here about the Indian Institute of Science at Bangalore. This foundation was made possible by a generous gift of the late Mr. J. N. Tata and valuable contributions in land and money given by the late Maharajah of Mysore. The institute has functioned for just about thirty years. Tata intended his gift to be used for promoting a research university after the model of the Johns Hopkins University of Baltimore. After his death, however, the institute passed into the control of those who prefer to see it function as an industrial research laboratory. These are obviously conflicting aims, and it is evident from the history of the institute that the attempts to reconcile them have not been successful. There is little doubt that if the intention of the founder had

been adhered to and the institute had been incorporated as a teaching university with power to grant research degrees, the objects he had in view would have been realized in abundant measure. The advantages of climate and situation which Bangalore enjoys and the generous endowment of the donor should have enabled the institute to figure as one of the foremost of the world's centers of research in pure and applied science. Actually, the best that can be said is that it has been a useful supplement to the Indian universities in respect of scientific and technological education. Of recent years, also, some valuable contributions to knowledge have emerged from its laboratories.

VALUE OF SCIENTIFIC RESEARCH

Scientific research may be considered from several different points of view. The first is that which regards it as an end in itself, in other words, as an expression of the constructive activity of the human mind, akin in its nature to art, literature, and music. The second point of view is that which regards it as having an educational purpose different from the mere passive reception of knowledge, and therefore having a higher value. The third point of view regards scientific research as a handmaid to social needs, e. g., the promotion of agriculture and industry. The fourth point of view regards it as the duty of science to provide munitions of war for offense or defense. The particular point of view depends on the individual or the community, and is an index of the cultural level and of the state of mind. It is inevitable that to the uneducated or the partially educated, the value of science is identified with its power to satisfy social needs. To a people at war, of course, nothing matters which cannot serve the needs of offense or defense. These views are, it must be said, extremely shortsighted. A country or a community which regards scientific research pursued for its own sake as a useless luxury, and which does not believe in the educational value of such research, is not likely to be successful in its attempts to harness science to social needs or in seeking its assistance in time of war. It is of the highest importance to India that these facts should be fully realized by those who have the power to control her destiny.

The recognition that India needs the services of her scientists in the promotion of her economic welfare has shown itself in a number of ways, e. g., the establishment and activities of the Imperial Council of Agricultural Research, the Indian Cotton Cess Committee, and the Indian Lac Cess Committee. Various research institutes have been functioning under the aegis of these bodies endeavoring to solve the problems of India's agriculture and of the utilization of her raw products. More recently, the needs of war have brought into existence a Board of Scientific and Industrial Research which at present concerns itself chiefly with trying to solve the urgent problems of supply created by the present exceptional circumstances. From time to time the official machinery for securing publicity for the work of these bodies announces that important results have been obtained. In the view of the present writer, however, the time has not yet come when the value of the work of these bodies to the permanent welfare of India can be justly appraised.

It is of the utmost importance that the value of scientific research for its own sake and as an educational force should be realized in India and that such activities should be adequately supported and encouraged. The following pregnant remarks

made by the late Lord Rutherford in the address already mentioned appear well worth quoting and being pondered over :

While, as we have seen, the universities of India have in later years made substantial progress both in teaching and research in science, yet it must be borne in mind that still greater responsibilities are likely to fall on them in the near future. This is in a sense a scientific age, where there is an ever increasing recognition throughout the world of the importance of science to national development. A number of great nations are now expending large sums in financing scientific and industrial research with a view to using their natural resources to the best advantages. Much attention is also paid to the improvement of industrial processes and also to conducting researches in pure science which it is hoped may ultimately lead to the rise of new industries.

SCIENTIFIC JOURNALS

A few words may be added here regarding the organization of scientific research in India. By far the most important service which any organization can render to science is the regular publication of a scientific journal where the results of research find a place. Such service is being rendered for workers in all branches of science by the Indian Academy of Sciences. This was founded in July 1934 by the present writer, and has since published its *Proceedings* every month in two series, one for the Physico-Mathematical and the other for the Biological Sciences. Much of the best research work done in India today finds a place in these *Proceedings*. Supplementary needs are being filled by various specialists; journals; the *Indian Journal of Physics*, established by the present writer in 1926, may be mentioned as an example of such journals.

Sir Chandrasekhara Venkata Raman, Kt., Ph. D., LL. D., D. Sc. F.R.S., was awarded the Nobel Prize for Physics in 1940 for his investigations on the scattering of light and the discovery of the optical effect known by his name, and has been the recipient of numerous other distinctions. He is the founder-president of the Indian Academy of Sciences and is an honorary fellow or honorary member of many scientific bodies throughout the world. He founded and for many years edited the Indian Journal of Physics. He is author of Theory of Bowed Stringed Instruments (1919), Molecular Diffraction of Light (1922), Musical Instruments and Their Tones (1928), Quantum Theory of X-ray Reflection (1941), and Six Lectures on Optics (1942).

Influence of Modern Thought on India

By BENI PRASAD

INDIA boasts of a civilization more than four thousand years old, which exercised a profound influence over all the countries round, imparting a religion and metaphysics to Tibet, China, and Japan, a whole system of culture to Siam, Indo-China, and the Malay Archipelago, and philosophic and aesthetic ideas to the Middle East. By the fifth century of the Christian Era, Indian culture crystallized into somewhat rigid habits of thought and feeling and institutional organization. After the eleventh century, India received, rather stoically, the impact of Islamic civilization directly from the northwest and indirectly from the Arabian peninsula, adapted herself to new conditions, political and cultural, under the Mogul Empire in the sixteenth and seventeenth centuries, and brought about a fresh synthesis in the domains of spiritual thought, language literature, art, and social relationships.

The new synthesis hardened, in its turn, and conservatism became the dominant note in the eighteenth century. This phase of development happened to coincide with internal disruption on the one hand, and with the expansion and encroachment of European commerce empire on and the other. It took the East India Company exactly a hundred years (from 1757 to 1856) to establish British rule or supremacy over the whole country and to draw it irrevocably into the cross currents of modern forces. The new means of transport and communication turned the face of India towards the West, especially after the opening of the Suez Canal in 1869. As early as the thirties, a momentous decision had commended itself to the Government of the East India Company, under Macaulay's inspiration, in favor of basing Indian education on Western science, philosophy, and literature, and imparting it through the English language.

Indian culture was extraordinarily rich in religious lore, metaphysical speculation, imaginative poetry, artistic tradition and aesthetic workmanship. Indian philosophy, whether cultivated in Hindu or in Moslem schools, found the ultimate source of knowledge in intuition as distinct from sensuous experience. Its focus was set by the inner spirit rather than by the environment. Western contact promised to supply just what it lacked—a scientific outlook, a positive tone, and a secular ethics. From the interplay of the Eastern and Western civilizations, there might arise a new synthesis, a decisive contribution to world progress.

ETHICAL DUALISM

As a matter of fact, this consummation has been hindered by a variety of causes. Apart from the inertia and conservatism of every traditional culture, the resistance to Western thought has been reinforced by its association with foreign domination. The latter hurt the pride and put up the back against all the influences that radiated from Europe or America, mainly through the medium of the English language and literature.

Nor was it easy to repress genuine and serious misgivings about the intrinsic worth and morality of Western civilization. It suffers from an ethical dualism

sanctioning one set of ideals over the internal life of a state, a race, or a region, and an altogether different set of ideals for relations with those beyond. Not to speak of the governments, the churches of the West, especially those of the Teutonic peoples, fail before the color bar. Conversion to Christianity in Africa, India, or Polynesia has never carried a status of equality, social or political, with the whites. Western peoples have waged wars of ever increasing extent and ferocity among themselves, either because of outworn and irrational systems of racial and national hatred or because of rivalry for the possession of backward territories, rich in raw materials and mineral resources or offering markets and fields of investment. The exploitation of the colored races in Asia and Africa often implied a more or less complete indifference towards the welfare of hundreds of millions of human beings. The "frightfulness" often employed by white rulers to quell "native" revolts and disturbances seems to suggest that their civilization has nailed its flag to racial ascendancy, nationalism exaggerated to the point of imperialism, and economic exploitation to the exclusion of general welfare.

All this stands in sharp contrast to the ideals of liberty, equality, and fraternity, popular government or socialism, which have been preached for a century and a half and partially applied to internal affairs. As Rudyard Kipling put it, "there ain't no Ten Commandments east of Suez." The attempts made by many writers and statesmen to cover up the chasm, that is, to resolve the dualism, by pleas of biological inferiority or innate incapacity on one side, trusteeship and protection of minorities on the other, and gradualness of progress on all hands, howsoever soothing to the Western conscience, leave the Oriental wondering at their capacity for self-complacency and self-deception.

Inevitably there arises the question: Is there not something radically wrong with a civilization whose exponents and leaders practice or acquiesce in sordid and inhuman materialism? Will its touch pollute the current of Indian life? True, science has mastered nature, but man in the West has neglected the more difficult enterprise of mastering human nature. He has forgotten that the essence of civilization is not *mere control* of environment, but *control through the social and humanitarian spirit*. Outward changes are important, but they remain amoral unless backed by an improvement in the inner nature, an expansion and deepening of sympathies, growth in disinterestedness, regard for others, and capacity for sacrifice for the social whole. To this ethical consciousness in terms of humanity, no approximation has yet been made by Western civilization. It has, accordingly, provoked grave questionings and antagonisms.

COMPLEXITY OF INDIAN RESPONSE

It is clear that Western thought and practice, far from commanding ready or universal allegiance, provoked much criticism of a fundamental character. On the other hand, its ideals for internal consumption, apart from foreign relations, were full of suggestions and inspiration for the reorganization which the dawn of a new era had rendered inevitable in India and elsewhere. If they were capable of rendering the Western peoples richer, happier, and more powerful, they might, under appropriate circumstances, serve to indicate the direction and the methods of institutional reorganization.

But modernization has been hampered by the appalling illiteracy in the land. The Government has never mustered the will, and has always pleaded lack of funds, to universalize primary education. The percentage of literacy in India is less than ten. Besides, the reception of ideas is determined mainly by pragmatic conditions, i.e., their suitability to a given environment. The Indian scene, highly favorable to the spread of some ideas, is still unripe for others. The Indian economy is pre-eminently rural. Indian industry has had to wage an unequal struggle against Western enterprise and finance, often backed by their governments. Until the outbreak of the present war, and especially at the outbreak of the war in 1914, India could scarcely be called an industrial country. Until the other day, the factory workers did not number more than five million. Trade unions are still in their infancy, and do not command a membership of more than four hundred thousand. The country has not yet achieved that measure of technical progress, i.e., application of science, not merely to industry but also to transport and communication, which is indispensable to any large-scale acceptance of a frankly socialistic program.

Finally, there is a lack of co-ordination in the influences that make for the rapid diffusion of modern ideas and practices. India still remains largely, though not entirely, what Sir John Seeley called "an inorganic state," whose government derives vitality, strength, and direction mainly from Great Britain. The lack of organic connection between the Government and national life means that the former cannot afford openly to champion modernization. Indian governance has rooted itself in religious neutrality, and caution in social reforms and modernization in general.

To sum up, the progress of modern thought has been hindered in India by conservatism, by widespread distrust and hatred of the narrow racialism and nationalism of Western civilization, by its association with foreign domination, by the mass illiteracy and technical backwardness of the country, and by lack of organic relationship between the Government and the people. On the other hand, it has been assisted by the irresistible march of science, by the utility of certain Western conceptions in organizing social relationships, and by a longing in many quarters to meet the West successfully on its own ground.

From this complex interaction of factors hampering or assisting the diffusion and adaptation of Western ideas and practices, there have ensued three consequences of a complicated nature. First, Western thought has failed, except indirectly, to touch the majority of the people, who live in villages, often at long distances from the nearest railway station or metaled road, and who are steeped in illiteracy and poverty. Second, there has been an inevitable trend towards modernization. Third, those fortunate enough to have received higher education have often recoiled before Western civilization as a whole, and, unable to reject it altogether, have sought to graft some of its elements on to traditional stems. It is a measure of the vitality of Indian civilization that the Western impact should herald an era at once critical and organic; critical of its own past and of Western culture; organic, with its own past and with certain aspects of modernity.

REVIVALISM

This is the genesis of revivalism—a hark back, in terms of modern requirements, to the invigorating purity of ancient religion, morality, and organization, which

constitutes one of the most important developments in the domain of Indian culture during the last hundred years. Psychologically, revivalism was a partial restoration of the self-respect which political subjection had deeply injured. It represented at once resistance to Western encroachment, recompense for the present degradation, and a hope for a reign of righteousness in the future. It facilitated social reform and assisted the reconciliation of some modern conceptions with the time-honored ways of thought and institutions. It appeared in the realm of religion and social reform as the Brahmo Samaj in Bengal, as the Arya Samaj in Upper India and similar movements among the Hindus, and as the Aligarh movement under the leadership of Sir Syed Ahmad Khan among the Mussulmans. Revivalism imparted a glamour to the ancient village economy, with its self-sufficiency, its simplicity, its cottage industries, and, above all, its spinning wheel. The economic phase of revivalism has found a prominent place in the philosophy and movement associated with the name of Mahatma Gandhi during the last twenty-five years.

MODERNIZATION

Apart from revivalism, it is possible to distinguish several trends of a distinctively modernist character in political and social reorganization. World events and currents of thought, particularly those in Europe, affected the intelligentsia and through it an increasingly large number among the masses. It was impossible that the Western outlook and philosophy be accepted in toto in India, but it is worth while to disentangle those features in Indian developments which bear an impress of modern thought, either directly or in the guise of revivalism.

NATIONALISM

One of the most important factors has been the growth of nationalistic feelings. It need scarcely be pointed out that nationalism is a modern phenomenon which appeared in Europe about the fifteenth century and acquired the force of a dogma after the partitions of Poland, and the French Revolution and Napoleon.⁷ It was inevitable that the British occupation of India, completed by the year 1856, should awaken aspirations of independence and therefore of nationalism. This feeling crystallized into a definite form and generated a strong movement under the influence of the nationalist ideas which seemed to command universal acceptance in Europe and beyond during the greater part of the nineteenth century. Leaders of independence like George Washington and Garibaldi became heroes; their biographies were published in several Indian languages. The nationalist leaders of Ireland and Hungary and later of Turkey, Egypt, and China received their meed of praise in Indian journalism and current literature. Nationalism has been one of the great founts of inspiration for Indian art and literature—poetry, fiction, and historiography—during the last sixty years.

LIBERALISM

What form of government was this Indian nation to set up on the attainment of freedom, and in the meanwhile, in what direction was it to modify the existing bureaucratic administration? It was generally agreed among the politically minded groups that Indian government must move towards democracy and base itself ultimately on the consent of the people. So emerged the new and composite ideal

of national self-government. Liberalism was reinforced by the example of parliamentary government, wide suffrage, responsibility of ministers to parliament and ultimately to electorate, and equality before the law, in England and elsewhere, and also by the philosophy of liberalism first enunciated by John Locke at the end of the seventeenth century and developed by a number of brilliant writers until the beginning of the present century. The French Revolution and those who prepared the ground for it or guided its successive stages streamed in on the Indian intelligentsia, and the scintillating phrases and dogmas of Rousseau's *Social Contract* were freely quoted. The writings of the republican nationalist, Giuseppe Mazzini, were assiduously studied, and a very important influence was exerted by the utilitarians, Jeremy Bentham, John Stuart Mill, and the latter's disciple and prolific author, John Morley.

SECULARITY

Allied to nationalism and liberalism was a vein of secularity clearly discernible in the advanced social philosophy of the West during the nineteenth century. Auguste Comte was one of those who acquired a vogue among the highly educated Indians, and reformers like the late Mr. Justice K. T. Telang in Bombay proudly described themselves as followers of Herbert Spencer. Every college or university, especially in the three Presidency towns, Calcutta, Bombay, and Madras, threw up a group of nationalists who gloried in freedom of thought. Secularity appealed to the builders of Indian nationalism because it might enable them to get round the sectarian differences in political life. It promised to undermine theological conservatism and priesthood and open the way to social reorganization on principles of liberty and equality of opportunity and emancipation from the trammels of authority.

INDIVIDUALITY

It was inevitable that the Western impact should disturb the old established order and encourage individualism. A break from custom and tradition, whether due to education or to the push of events, has its risks, but it is also calculated to produce a new sense of the worth of personality, the dignity of a man as a man. The tendency was assisted by the individualist philosophy of the physiocrats, the utilitarians, Herbert Spencer, and others. Liberty of thought and expression and, so far as possible, of action, association, public meeting, and so forth, became one of the cardinal tenets of Indian political thought. The stress laid on the rights of the individual helped to relax the bonds of caste, elevate the position of the women and the depressed, and raise the age of marriage. This is the key-note of the addresses of Ranade, Telang, Bhandarkar, and others before the Indian Social Conference.

It must, however, be pointed out that India never accepted the gospel of laissez faire or free trade which arose under the influence of bourgeois industry and commerce in France and Britain. Free trade was not suited to a country like India, which was just embarking on an industrial career and had to reckon with the almost fatal competition of British, and later also of other, imports. The Indian National Congress founded in 1885, and the Indian Industrial Conference, which held its session shortly afterwards every year with the Congress, demanded protection for Indian industry, state aid to new enterprise, and, later, economic planning.

POSTWAR INFLUENCES

Such were the influences that helped to determine the form and the content of the Indian movement until the outbreak of World War I. The events of 1914–18, the departure from liberalism, the vast extension of social control and state activity, the foundation of republics on the fall of the German and Austrian Empires, the establishment of international organizations like the League of Nations, the International Labor Organization, and the Permanent Court of International Justice, the gospel of democracy and self-determination proclaimed by the Allies and especially by the American President, Woodrow Wilson, and, above all, the Russian Revolution of 1917 stirred India to its depths. From 1928 onwards, the Russian five-year plans attracted much attention and received warm approval. They seemed to point the right way to the liquidation of poverty and the attainment of an up-to-date economy. The economic depression which began in 1929 hit India hard, turned the mind to fundamental reorganization, and enhanced the admiration for Russia, which alone was untouched by the depression and which alone had abolished unemployment. The fresh currents of life overflowed the narrow bounds of the intelligentsia and affected the mass of the people. The Indian response to the new situation and the new world consists partly in the continuation of revivalism and partly in a reflection and adaptation of socialistic theories.

It is significant that fascism has found few adherents in India; its narrow nationalism, class ascendancy, aggressive militarism, and repudiation of freedom have proved repulsive.

The intense longing for national independence—a position of self-respect in the comity of nations—was voiced afresh by Mahatma Gandhi, whose influence, in spite of a few apparent breaks, has been dominant since 1919. Mahatma Gandhi possesses an unsurpassed sympathy with, and understanding of, the peasant masses who constitute 90 per cent of the Indian population. To the nationalist dogma, he has joined the cult of the spinning wheel, the symbol of the cottage industry, the simple life, and something like village autocracy. Gandhism is essentially spiritual, and is rooted in a universalized code of ethics under the inspiration of the Upanishads (the most ancient philosophic disquisitions of India), the founders of Buddhism and Jainism who preached the gospel of ahimsa or nonviolence in the sixth century B.C., Jesus Christ who denounced evil without hating the evildoer, and modern writers like Carlyle, Ruskin, Thoreau, and above all, Count Tolstoy. The conjunction of ethical elevation, spiritual fervor, and political ideals has made Gandhism a synthetic way of life for large numbers of people. Gandhism also incorporates a certain mysticism which appeals to the Indian nature. It builds itself on renunciation, which grips the Indian mind and which presents a contrast to the hedonism of Western schools. The stress on non-violence and its application to mass movements since 1919 in India, while the rest of the world was piling up armaments and heading towards devastating wars, has attracted world-wide attention.

SOCIALISTIC THEORIES

Second to Gandhism at a long distance has been the influence of socialistic theories on India during the postwar period. Syndicalism or guild socialism has never had an appeal to the Indian mind; the economic environment has never been

favorable to either. The same holds true with even greater force of philosophic anarchism, except that it exercised some influence over the earlier views of Mahatma Gandhi. In his *Indian Home Rule*, published in 1909, he wanted government to be reduced to the minimum. European trade unionism supplied a model for Indian trade unions. Socialism has exercised increasing influence on the younger generation and on trade unions. Communism has been espoused by the more ardent and has usually entailed allegiance to the Third International centered at Moscow. There are, however, three reasons why neither socialism nor communism has been able to touch more than the bare surface of the Indian political and economic life. The socialist or communist theories were worked out in Europe in response to advanced industrialization, and accorded with the psychology and aspirations of organized labor in Western lands. India is still backward industrially; the proletariat is small and largely illiterate. A careful analysis leads many to the conclusion that the supreme need of the hour is industrial expansion, even on the capitalist basis. Second, the socialistic programs have not been adapted to the rural conditions under which the vast majority of the people live in India. Concepts and dogmas which may fire a European proletariat leave the Indian peasantry cold; they have no relevance to its immediate grievances and remedies.

Another retarding factor is the attitude of the state towards the Leftist parties. Communism has borne the brunt of official proscription in British India and the Indian states. A great deal of communist literature is banned and cannot enter India. Numerous communist books, periodicals, and newspapers have been confiscated. Many communists have served long sentences of imprisonment or periods of detention in gaols or concentration camps. It was only in July 1942 that the Communist Party ceased to be illegal in India, and that because of its readiness to support wholeheartedly a war to which Soviet Russia has been a party since June 1941, and which is being waged against three fascist powers. One act of persecution, indeed, served the communist cause. The Meerut conspiracy trial, which began in 1929 and dragged on for several years, brought the communist dogma and technique, for the first time, within the ken of many young men; but official disfavor has tended, on the whole, to limit the number of those professing communistic ideas.

The Leftists, as they call themselves, have been divided in India, as elsewhere, into several sections, often at loggerheads with one another. There are at least four wings discernible in India at present. The division has naturally detracted from the influence which the Leftists might have legitimately exercised during the postwar reorganization. Behind it all remains the solid fact that nationalism rather than socialism, must be the outstanding urge until the attainment of national freedom.

GENERAL INFLUENCE OF SOCIALISM

The Leftist ideologies have thus been subjected to serious handicaps, internally and externally, in their progress in India; but some of their basic postulates and principles are so general and so closely in accord with new developments that they have been received favorably by large sections of the intelligentsia especially the new generation of students, and also by those among the masses whose political

consciousness or social aspiration have been roused. There is an increasing perception of the fact that scientific progress has now brought plenty and comfort within reach of all. There is a corresponding impatience with frames of government and institutions like landlordism, which keep down the energies of production and make for maldistribution of products of wealth. It is being realized more and more vividly since the economic depression of 1929-34 that private control of the means of production is breaking down and must be replaced by socialization or social control or a judicious mixture of both in accordance with the circumstances. The economic gospel of Gandhism has been subjected by Indian socialists to searching criticism and is being rapidly outgrown. The uplift of the masses, no longer a pious but a severely practical ideal, calls for a change from the police state to the welfare state, to think out ways and means and inaugurate experiments in the enhancement of production, equitable distribution, and diffusion of public education.

This leaven of thought has been observable in Congress leaders, like Pandit Jawaharlal Nehru, and among the rank and file. The Indian National Congress laid down at its session at Karachi in 1931 that "in order to end the exploitation of the masses, political freedom must include real economic freedom of the starving millions." It envisaged a living wage and other amenities for the workers, special taxes on property, and the ownership or control by the state of key industries and services, mineral resources, railways and waterways, shipping, and other means of public communication and transport. It must be pointed out that a few years later, the Congress Working Committee, on the eve of a general election, deprecated loose talk about confiscation of private property and necessity of class war, and declared them to be incompatible with the Congress creed of nonviolence. Nevertheless, the basic principles of more equitable distribution of wealth and approximation to equality, at the sacrifice of privilege wherever necessary have been gaining ground.

The Kisan, or peasant movement, which has made some progress in North India, especially in Bihar, stands for more equitable terms for peasants in their dealings with landlords, money-lenders and the Government. It has sometimes demanded abolition of land-lordism and the establishment of peasant proprietorship and even the collectivization of farms. It is obvious that the peasant movement has a future in India and may pass more and more under socialist influence. It has nowhere advocated socialization of the land, but it wants feudalism or its relics to be supplanted by peasant proprietorship, moderate assessment of revenue, restriction, almost to the point of abolition, of ejectment, and co-operative credit and marketing.

TRADE UNIONISM

It has been pointed out above that trade unionism is still in its infancy in India. The trade unions that actually exist have been influenced by the communist ideas of economic determinism, class consciousness, and the general strike. The Girni Kamgar Union, the most powerful organization of Bombay labor, has been organized and led by a group of young communists. Trade unions in Calcutta, Cawnpore, Ahmedabad, and elsewhere have similarly been influenced by communists. It must, however, be pointed out that their immediate programs are very moderate and aim chiefly at amelioration through higher wages, shorter hours of work, and more holidays.

INTERNATIONALISM

It is significant that the growth of the proletarian movement has synchronized, with a note of internationalism in current Indian thought. The genius of Rabindranth Tagore transcended all barriers and stuck the chords of human solidarity. To Pandit Jawaharlal Nehru more than to any other single individual, belongs the credit of familiarizing India with the interdependence of events and developments in various lands and the desirability of close and friendly relations with China, Russia, and other states.

THE FUTURE

All modern influences pointed out above, namely: nationalism, liberalism, secularity, individuality, mass uplift, socialization or social control of the means of production, and functional organization like the peasant unions or trade unions, are likely to make more rapid headway in the future than in the past. Postwar reconstruction may assist their assimilation and integration into the general texture of Indian thought and life. That is one of the tasks awaiting those whose energies will be free, on the attainment of political freedom, for systematic reorganization, social and economic.

Beni Prasad, Ph. D., D. Sc., is professor of civics and politics and head of the Department at Allahabad University, where he has done research in history and political science. He has been associated with the Indian Political Science Conference since its inception and was President of its third session, in 1940. He is editor of the Indian Journal of Political Science, and is author of History of Jahangir, Theory of Government in Ancient India, The State in Ancient India, The Democratic Process, Hindu-Muslim Questions, and other works.

The Frozen Manpower of India

By GYAN CHAND

INDIA'S potential human resources are known to be immense, and even the stress of this total war has not brought this country face to face with what is generally called the manpower problem. The large size of our population and the rate at which it has been increasing give us, of course, enormous reserves to draw upon. But the non-existence of the manpower problem is not due merely to our large population. The fact that for India, owing primarily to political reasons, this war has not become a total war and has not involved all out total effort is a factor of even greater importance in our avoidance of one of the most urgent problems of the war, i. e., the problem of finding men for all the jobs that have to be done in prosecuting the war and providing supplies for it. India has been perilously near having firsthand experience of the horrors of war; and though for the time being the danger is not immediately on the horizon, it has to be reckoned with in all our anticipations for the next two years. Our human resources are almost unlimited; and yet our defense position is extremely

precarious because of the inherent difficulties of mobilizing these resources for meeting the dangerous situation in which this country finds itself.

LIMITATIONS ON HUMAN-RESOURCES

This stark disparity between our potential and actual resources for meeting the urgent needs of the war is, as everyone who has real understanding of the facts in this country knows, directly due to the unwillingness and inability of our rulers to develop the material and moral resources of our people. Not only before the war but also during it, their primary concern has been to hold the people down, and the development of resources which could even remotely impair their power and position has been inhibited by artifices which do credit to our rulers' political resourcefulness but not to their probity.

This observation on the limitations of our human resources in this hour of our dire need has had to be made because of the bearing of those limitations not only on the war situation but on the whole setup of our national life. Our political disadvantages are not only a limiting factor in the utilization of our human resources: they are an integral part of our whole social economy, which moves in a vicious circle and makes our population a drag on itself, owing to the crushing weight of its size. In point of quantity and quality our people are equal to any demands that can be made on them, and yet there is no possibility of their fulfilling their destiny (and they have a destiny, a historic destiny, to take their place not below and certainly not above but alongside of the other peoples of the world) unless the weight of numbers is mitigated and the whole context of our national life is changed by a process of self-renovation.

In the introductory paragraph it was necessary to state the point which is fundamental for understanding the Indian problem of human resources and their full utilization, but factual statement of the present position is probably more relevant than speculative observations for understanding the essentials of the problem; and it is therefore necessary to give briefly significant facts relating to our population and its rate of growth.

POPULATION GROWTH

The general impression is that population in India is growing very rapidly. This impression is correct if we confine our attention to the last two decades, but a longer view shows that the growth of population in India has not been as rapid as in Europe and America. The change which has occurred in the countries of northwestern Europe and America through the widespread use of contraceptives and consequent partial voluntary sterilization has created an entirely new outlook for the future. It is, however, not right to assume that Indians, or Asiatics in general, are inherently more prolific than the peoples of Western countries. According to the census of 1941 the population of India is 388.8 millions, which is 15 per cent more than the recorded population of 1931; but that this rate of increase cannot be taken as normal is shown by the rate of increase of the different decennial periods since 1871. These rates are:

Period	per Cent	Period	per Cent
1871-1881	1.5	1901-1911	6.4
1881-1891	9.6	1911-1921	1.2
1891-1901	1.3	1921-1931	10.6

The 1941 figures for Europe and America are not available, but if we compare the increase of population in India between 1870 and 1930 with the increase in some of

the more important countries of the world for the same period we find that the much advertised increase of population to use the words of Jawaharlal Nehru, is at a much lower rate than in most Western countries. During this period, i. e., 1870-1930, while the population of India increased by 30.7 per cent, that of Europe (excluding Russia) increased by 64 per cent, Germany 60 per cent; Italy 60 per cent; England and Wales 77 per cent; Russia 115 per cent; the United States 125 per cent; and Japan 113 per cent.

These figures are not cited to show that in India the position with regard to population is satisfactory, or even that this relatively low rate of growth can be maintained in the future without creating serious difficulties in carrying out the task of national regeneration. There is a growing recognition even in the country of the vital importance of regulating the growth of population within the limits set by the urgent need for providing the conditions of healthy and decent existence for the hunger-racked masses of India. But these simple figures are a conclusive refutation of the widely prevalent view, sedulously fostered, for political reasons, that the population factor is the main cause of the extreme poverty of our people and is more than anything else responsible for having failed to secure for them the very barest minimum necessary for the satisfaction of even their physical needs. Poverty of our people is an extremely complex problem, and of all untrue simplifications of the problem which are current, the view that the grim form in which it presents itself in this country is due primarily or mainly to the rapid rate at which our people have been multiplying is the least convincing and leads to the greatest confusion of issues.

THE INDIAN STATES

The all-India figures of the growth of population cannot, however, give any idea of the diversity of conditions prevailing in this country. India enjoys political unity of a sort. There is unified control over the entire area so far as the maintenance of British power is concerned. The Central Government under the order of Whitehall exercises supreme control over all the political units in the country and can and does enforce its will over them. But the unity of control is not meant to be exercised for securing a uniformity of economic and social development in the different divisions of the country. The division of India into what are called Indian states and British India has arisen owing to the convenience of administering nearly one-third of the country through agents who are autonomous within the limits set by the paramountcy of British power. They cannot challenge the authority of the paramount power; but as the latter is interested in maintaining its supremacy and not in the welfare of the people, the people of the Indian states are under nearly six hundred Rulers whom no one can call to account in respect of the welfare of their subjects, which they, with a few notable exceptions, have woefully neglected.

In 1941 the total population of the Indian states was 92.92 million, or a little less than one-fourth of the total population of the country, and showed an increase of 14.3 per cent over the population of 1931. But the most significant point is not only the irresponsibility of their Rulers, but the fragmentation of the states into units which, in a vast majority of cases, are too small to be efficiently or progressively administered. There are a few states which have done well and have a

creditable record of achievement; but taken as a whole, the Indian states are politically backward, and so long as the status quo is maintained, they cannot possibly attain a standard of administration necessary to alleviate the economic and social conditions, even judged by the low standards accepted in India. These human resources of India are politically frozen; they cannot be utilized for the progressive development of the country.

THE PROVINCES

The rest of India has a population of 205.8 million and is divided into eleven major and five minor provinces. The minor provinces had in 1941 a total population of 2.24 million and are relatively unimportant. The growth of population in the major provinces is given in Table 1.

TABLE 1—POPULATION IN MAJOR PROVINCES
(In millions)

Province		1931	1941	Per Cent Increase
Madras	...	44.21	49.34	15.2
Bombay	...	17.99	20.85	15.9
Bengal	...	50.11	60.31	20.3
United Provinces	...	48.41	55.02	13.6
Punjab	...	23.58	28.42	20.4
Bihar	...	27.73	28.82	12.0
Central Provinces	...	15.32	16.82	9.8
Assam	...	8.62	10.20	18.8
North-West Frontier Province	...	2.43	3.04	25.2
Orissa	...	8.03	8.72	8.2
Sind	...	3.89	4.54	16.7

As the provinces have a population varying from 3 to 50 millions and the range of diversity in respect of physical, social, and economic conditions is also very wide, it is not possible to make any general comment on these figures in this short article. Average increase in the decennial growth is a little over the all-India average, i. e., 15.2 per cent, but in the seven large provinces the growth of population varies from 10.6 to 51.6 per cent. From 1881 to 1931 the increase is as follows: Bengal 38 per cent; Bombay 32 per cent; Punjab 37 per cent; Madras 51.6 per cent; Central Provinces 35 per cent; Bihar and Orissa 26 per cent; United Provinces 10.6 per cent.

It is not possible to discuss causes of these variations, but there is one point to which brief reference must be made. The rate of growth is, generally speaking, more rapid in the provinces or parts of provinces which are already densely populated, and since 1881 no redistribution of population on any considerable scale has taken place. That clearly indicates that relatively sparsely populated parts of the country have no or little absorbing capacity. Land hunger in this country is so acute that the cultivators are prepared to move to any part of India in which there is a fair prospect of their being able to get land for settlement; but at present most of the cultivable land is already under cultivation, outlet for extension of cultivation is exceedingly limited, and the growing population has a matter of inescapable necessity to stay where it is born thereby increasing the already heavy pressure on the soil and morcellation of the cultivable land.

A DOWNWARD SPIRAL

The occupational statistics are incomplete and have been compiled on different bases at the successive censuses; but such as they are, they point to the growing dependence of our people on the land. From 1903 to 1933 the average net area sown has decreased from 0.883 acre to 0.841 acre per head, and the area under food crops from 0.829 acre to 0.785 acre per head. The percentage of workers in

industry has been reduced from 11.27 in 1911 to 9.27 in 1931, and in trade from 5.7 to 5.4. Trade and industry are absorbing a decreasing proportion of our population, which of course is another way of saying that the proportion dependent upon agriculture is correspondingly increasing.

There are hardly four million men in the large-scale organized industry in this country, and the possibility of carrying industrialization much farther or to an extent to provide material relief from the pressure of population on the soil is, under the existing conditions, very narrowly limited. The most important limiting factor is, it is now generally recognized, the deplorably low purchasing power of the Indian masses. We are caught in a real vicious circle. Our agriculturists are poor because they are too many on the land and available cultivable land is absolutely insufficient to give them full employment all the year round; and industries which could take people off the land cannot be developed because, owing to the poverty of the masses, i. e., the agriculturists, the internal market for the products of the manufacturing industries is not capable of any considerable expansion.

This paralyzing situation must be faced and remedied; but the present political regime is incapable of making a move for this purpose. It lacks the insight, the interest, and the drive for a bold and adequate policy of national reconstruction. Its interest lies in backing up and bolstering the vested interests which stand in the way of progress; and as long as the regime lasts, we may get make-believe measures, a great deal of ingeniously devised propaganda, ruthless repression of forces thrown up by the logic of a truly desperate situation, but we will not and cannot get real progress in the right direction.

Reference made above to the reactionary and obstructive character of the existing political regime in the country should not be taken to imply that political changes alone are necessary for taking a long step forward for solving the problem of utilizing to the full the human resources of India. But our political regime is closely interwoven with the whole fabric of economic and social life. It is living on and not for the people, and therefore all parasitical interests, which it has created and supports and which naturally support it in return, are an organic part of the political system. To solve this problem, India will need a real revolution (the method by which it is achieved is for the purpose of this article irrelevant) and when a real political change is brought about, the necessary economic and social changes will follow it as the day follows the night.

VITAL STATISTICS

At present there is an enormous waste of life and therefore of human resources in this country. Figures of the birth and death rates in India are very defective, but, roughly speaking, the normal birth rate of 45 and death rate of 32 and infant mortality rate of 240 per thousand can be posited. These rates are about the highest in the world. India is a death-ridden country and a country of widespread and fatal epidemics. Tuberculosis is one of the many deficiency diseases. It is working havoc among our people and is now spreading from urban to rural areas. Maternal mortality figures are also defective, but the mortality is known to be very heavy, and the estimated rate of 50 per thousand is most probably an under—rather than an over-estimate. Some part of it is due to lack of antenatal and postnatal care, but the most

important cause of the appalling loss of life is the lack of vitality due to chronic and widespread undernourishment of our people.

Our population is increasing, but the cost we have to pay in human life and happiness is shocking and makes life itself absurdly and painfully cheap in India. Our people have become so used to death and dying that the waste of human resources in our whole economic system—in our short working life, in the misapplication of human labor, in the lack of opportunities for the overwhelming majority of young people, in the absence of interest in the zest of living—has no effect on our sensibilities. There are no people in the world who are essentially more tender and have more of the milk of human kindness than the Indian people, and yet our familiarity with death has hardened us to a degree and made us unaware of the incredible loss of life and its potentialities that goes on all around us.

This cannot go on indefinitely, and must be stopped. Even in India, the people cannot endure hunger and die of starvation patiently and in silence for all time to come. It is clear that they are waking up to the tragedy of the situation and to the realization that in India, too, life must be made worth living.

BIRTH CONTROL

The more thoughtful among the Indian people are also realizing that involuntary parenthood is a crime against humanity and the unborn generations. The interest in contraception is common enough to make it worth while for men with little knowledge but good business insight to exploit it commercially. But the Government has not realized the constructive possibilities of birth control, and expert guidance is practically nonexistent. The medical profession in this country, even more than in other countries, is still convention-bound and not in a position to give the guidance which it alone can give. The knowledge of contraception is still very meager, and research in its technique suited to the needs of our people and their means is entirely undeveloped. There are neither facilities for this research nor competent workers to carry it out. In India as elsewhere, there are convention-ridden people for whom birth control is violation of the law of God and man, and who condemn it as unnatural and immoral. Among them are a few truly spiritually minded men like our great national leader Mahatma Gandhi, who regard the use of birth control as an easy and dangerous path of self-indulgence.

But in spite of these difficulties, a new and creative attitude toward sex and its beauty and richness is slowly but silently permeating the minds of our young people, and in spite of the unbalancing effect that it has on some of them, it serves as a social ferment and is expressing itself in various ways in our new literature and modern fiction. Our people will take to the practice of birth control as widely as, and probably more easily than, the other peoples once they know that escape from unwanted parenthood is possible and can be effected without setting up impossible stresses within. When the provision of knowledge of and guidance in birth control becomes an important health function of a rationally minded national state, the people will be more than eager to avail themselves of the means for bringing one of the deepest and most thrilling urges of human life under control and to use it creatively for enriching individual and social life.

At present, however, Nature is having it almost all its own way, and children come without forethought, prudence, or rational choice on the part of the parents. Some of the Indian and foreign students of our problems are so greatly impressed by this recklessness in the matter of procreation that they make birth control their new gospel of life, and adoption a means of saving life and solving the economic problem of India. Their excess of enthusiasm defeats its own purpose, leads to acrimonious controversy about the causes of poverty, and results in a loss of the sense of proportion among the disputants.

Rational control of births is probably more necessary in India than in most other countries of the world, and as a part of comprehensive policy of national reconstruction it must be given an important place in any scheme for reordering of the life of our people; but in and by itself, it does not solve any of the fundamental problems—among them the problem of the full utilization of human resources. For that we need a root-and-branch change—a complete reorganization of our political, social, and economic life. We have first to win and maintain our freedom, use it with care, intelligence, and vigor to create a new vision of life, and do our very best to realize it in actual practice.

THE PRESENT FRUSTRATION

At present, when we are in real danger of being overrun by aggressive powers and find ourselves helpless to counter and remedy the proved incompetence of our rulers, our people are only aware of a sense of all-round frustration. For them the problem of human resources is the problem of lost opportunities, the problem of overcoming stupid and shortsighted lust for power in one of the greatest crises of human history, the problem of preventing legitimate resentment and anger from being converted into indifference to what is at stake in this war or even into collaboration with forces which will be the undoing of our own people. It is not, therefore, at all surprising that the future hardly interests our people, and that they are acutely alive only to the dissipation of their resources in this hour of their greatest need.

All this is there, and yet things will change. In spite of all omens to the contrary, India too will be free and a part of a free world. This may be a dream and may not come true. But if it does come true, India's teeming millions will come into their own, take their due place in the community of free nations, and undertake seriously, and let us hope efficiently, the enormous task of conserving and developing the most precious of all resources—the human resources of India—i.e., the task of realizing all the latent possibilities of an ancient and potentially rich people, rich both in material wealth and in spirit.

Gyan Chand, Ph.D., is professor of economics at Patna University, and is a member of the Consultative Committee of Economists appointed by the Government of India to deal with the question of postwar economic reconstruction. He was president of the Indian Economic Conference in 1938, and has served on many economic committees in the province of Bihar. Among his many published works are Essentials of Federal Finance, Some Aspects of Fiscal Reconstruction, and India's Teeming Millions.

India's Human Resources

By S. CHANDRASEKHAR

THE greatest of India's resources is in many ways the most neglected and most poorly developed. The huge reservoir of manpower, which is more important and valuable than soils, minerals, forests, fisheries, or any other natural resources, receives very little care and conservation. Where and under what conditions are these human resources produced? How and why do they grow? Are they growing too fast? What about their character and quality? What should we do to prevent them from deteriorating into a sad liability to the nation?

GROWTH OF POPULATION

India's population is about one-fifth of the total world population. In the sixteenth century, according to some rough estimates, it was nearly 100 millions. In the middle of the 19th century, the figure reached about 150 millions. In 1881, when the first regular, though incomplete, census was taken, the population stood at 254 millions. In 1931, fifty years later, the census showed 353 millions, which represented, incidentally, an increase of 10.6 per cent over the figure of 1921. The figure of the eighth decennial census of 1941 was 389 millions, which is an increase of 50 millions or 15 per cent, over the 1931 figure.

After the formation of what was called the Indian Empire as a part of the British Empire, and until 1937, the population of India included, besides the geographical India, Burma, which was a province of India, and even Aden, which was classed as a part of the Indian Empire, but excluded the island of Ceylon, the British Crown Colony immediately southeast of India. However, the Government of India Act of 1935, which came into force in April 1937, effected the political separation of Burma and Aden from India proper, and today's population figure is for geographical India alone. Table 1, summarizes the growth of India's population from 1881 to 1941.

TABLE 1

Census Year	Population (000 omitted)	Increase	
		Net	Percentage
1881	250,125	—	—
1891	279,584	22,471	9.0
1901	283,827	4,578	1.5
1911	302,995	16,169	6.8
1921	305,674	2,679	0.9
1951	338,119	32,445	10.6
1941	388,800	50,681	15.0

Every day India adds to her population the equivalent of a town of almost fourteen thousand inhabitants. The means that India's population increases every year by at least five millions. So today it must be about 400 millions—the largest population of any country in the world that has a regular official and periodical census count. Some students of Indian demography have been greatly impressed by this "alarming rate of increase," for India is apparently adding the population of a Spain or a

Poland or England every decade. At this rate, according to some calculations, India may reach the staggering figure of 700 millions by A.D. 2001. But we need not be so imaginative as that, for sufficient unto the day is the population thereof.

Therefore, before we allow ourselves to be impressed by these alarming estimates and forecasts, let us examine two false conclusions that are usually reached by the

observer of Indian population growth. One is that the density of population in India is very great and that the growth of numbers has been unusually rapid.

The population density, of course, varies in different regions of India, from more than 800 per square mile in parts of Bengal down to less than 100 in parts of Baluchistan. The area of India proper is more than one and a half million square miles—as big as Europe minus Soviet Russia, or slightly more than 55 per cent of the area of the continental United States of America. On account of this vast area, the mean density for all India does not exceed 246 persons per square mile. This is nearly five and a half times the density of the United States of America, but is considerably lower than that of Germany, Japan, England, Italy, Java, or Puerto Rico.

The second false conclusion is that India's population has grown with absolute rapidity. The increase was 10.6 per cent during the decade 1921-31 and 15 per cent for the last decade, 1931-41. The population of United States, for instance, increased 16 per cent during the decade 1920-30, but the increase in absolute numbers was comparatively little because of the small total population. But because of the existing teeming numbers of India's population, even a modest 15 per cent rate of increase has yielded India a net gain of more than 50 millions, in itself greater than the entire population of any European country except Germany and Russia, or any Latin American country. Thus the *rate of growth* has not been in any sense very striking or unusual in India. As Dr. Kingsley Davis points out:

..... the population, adjusted to the present area [excluding Burma], increased about 54 per cent during the period from 1872 to 1941. The United Kingdom during the same period increased 56 per cent, and if we take the 70-year period from 1821 to 1891 (perhaps more comparable to India's last 70 years) we find it increased 81 per cent. Similarly Japan during 70 years from 1873 to 1942, experienced a growth of approximately 136 per cent. Compared to many other countries, therefore, India's population has not increased with extreme rapidity.*

EXPLANATION OF THIS GROWTH

— Several factors—sociological, economic, social, political, and religious—account directly or indirectly for this growth. The first though not the foremost, factor is the comparative peace that India has been enjoying for nearly a century. Before the establishment of British rule, no part of the country enjoyed any prolonged period unbroken by wars, pestilence, or famine; though famine, taking a tremendous human toll, has not disappeared even today. In fact, these unstable conditions were partially the result of British, French, Dutch, and Portuguese efforts to establish economic and political supremacy in India. What with these foreign invaders' periodical visits to loot India, the native rulers easily took sides and the result was civil wars, though they were not so frequent as those in China. But once the British rule was established with force of arms, comparative peace was also maintained, partly by force of arms and partly by virtue of the British political ideals. Thus, for nearly a century India has been enjoying peace and tranquillity, if these terms could be defined merely as averted wars, and no great portion of her manpower has been lost through wars comparable to what is happening today on several battlefronts.

The second reason, though not a very important one, is the increasing improvement in the census operations of India, which represent a triumph in

* Kingsley Davis, "The Population of India", *Far Eastern Survey*, April 19, 1943.

organization. The 1941 census year was a "peaceful" year, despite the fact that India was technically a belligerent country. The last census was also significant for full co-operation on the part of the people with the census authorities. There has never been in India's history a national or people's government at the center. The 1935 Government of India Act enfranchised millions of people, and those who had thus become politically conscious thought that getting registered on the census schedule was finding a permanent place on electoral roll. Therefore, everybody made an effort to get into the census schedule. Despite the fact that there was a political deadlock in the country between the British Government and the majority of the popularly elected cabinets in the provinces, there was no major political upheaval in the country to disturb or interfere with the census enumeration. This factor is often ignored, but it is important, for Gandhi's nation-wide Civil Disobedience Movement in 1931 interfered with the census enumeration that year to the extent of a recognizable margin of error.

Health and prosperity

A major factor contributing to population growth, however, is that the last decade was relatively healthy and even prosperous. On the negative side, no nationwide or even province-wide epidemic or any similar catastrophe laid waste the country. Nor was there any famine comparable in its rigors to those of earlier decades.* New political reforms in the provinces, the provincial autonomy—which transferred a substantial measure of political control to the people's representative—and the formation of popular provincial governments by the Congress Party gave rise to several ameliorative and progressive changes in the administration of the country.

These new measures of the popular governments have left their imprint in several fields for the betterment of the general economic condition of the people, though the provincial governments' capacity for good was suddenly cut short by the declaration of the present war.

There has been some improvement in public health measures in most of the provinces. While improved public health policies have a delayed effect on the quantity and quality of the people, they have an immediate effect in keeping alive persons who otherwise would have died, and many of these reach the stage of reproduction in the course of a decade. If a girl or young woman is saved from premature death cholera, it means not only that one soul has been saved, for she continues to live, but also that she is going to add to the population on reaching the period of reproduction. The marked reduction in epidemic mortality in India for the decade under discussion is in sharp contrast to the decade 1921-31, which reflected heavily the results of the influenza epidemic of 1918-20, which accounted for the loss of some twelve millions. This factor partly accounts for the growth of India's population.

The regions which have contributed a substantial number to the all-India population have witnessed in the last decade some striking changes toward improved economic conditions. To take but two examples: The Punjab, which was almost

* The demographic effects of the present tragic famine in Bengal (1943-44) may be revealed in the 1951 Bengal census. Exact mortality figures are not available, but they are likely to exceed one and a half million.

a desert some years ago, has been converted into a smiling garden, thanks to the vast irrigation projects that have been brought into existence in recent years. The irrigation development in the Punjab, bringing more land under cultivation, easing thereby the economic tension in the lives of millions, has contributed to an increase in the population not only within its borders, but also in the province of Sind (17 per cent), in Bikaner (38 pr cent), and in the Bawalpur States (38 per cent).

The second instance is East Bengal. Parts of this region, though not quite so desertlike as the Punjab, were covered with wooded marshes until recent years. Reclamation work, irrigation facilities, and the flood waters have brought this region controlled water supply and consequently brought it under the plow. This inundating water not only irrigates the land but also brings new soil and fertility; the floods also scour out channels and drains. These natural as well as man-made improvements have rendered agricultural operations somewhat more profitable. The result is that this region exhibits a high density of population. The heavy increase in population in East Bengal has also contributed to a rise in the population of Assam, Cooch Behar, and other adjoining areas.

Sociological factors

Besides these ameliorative and progressive measures, there are certain sociological factors that partly explain this decennial increase in population. In India, unlike any country in the West, an overwhelming majority of the population is found to be in the married state. This by itself does not mean much, except that it is potentially favorable toward increasing the population. Then the common and rather widely prevalent tendency to marry early, with a socio-religious sanction behind it, has been an encouraging factor, albeit limited in its scope, in the growth of India's population.

According to some hypotheses, climate acts as a favourable factor in the growth of a population. In India the girls attain puberty between the ages of twelve and fifteen and, though often physically immature, they are physiologically ready to bear children; and cases are not wanting where reproduction has begun at the age of thirteen or fourteen. The Report of the Age of Consent Committee and the All-India Women's Conference Report have estimated that more than 40 per cent of the girls married in India are below the age of fifteen. The girls marry as soon as they reach puberty, begin bearing children early, and reduce the period of lactation, thereby shortening the intervals between childbirths, with the disastrous final result of premature death.

The very low level of living, the absence of a prolonged period of education or training, the existing social attitudes that encourage a large family, the joint family, the want of nation-wide contraceptive clinical service, and, above all, the psychological reason that encourages every man to look to his wife and sex intimacy as the only relaxation and recreation in an otherwise dull and unexciting life of a relentless struggle to make both ends meet—these are contributing factors. The very economic instability makes one resigned and fatalistic; thought for the morrow and contemplation of the prospect of a large family are brushed aside. The thought that one cannot be worse off than he is banishes all ideas of foresight and control. A reconciliation with unheard-of poverty becomes imminent.

How this low level of living, supported by the strict caste system, frustrates

all efforts on the part of the individual to climb up and push on, eventually resulting in a high birth rate, is pointed out by Warren S. Thompson. He observes:

In countries like India, where capillarity is small because of a rigid caste system, there is no tendency for the birth rate to decline and for population to die out; just as a very solid substance (copper or iron) will prevent any considerable capillary movement in fluids, so a rigid social structure will prevent upward movement in a society and will thus obviate the danger of an individual development becoming so engrossing that the person has not time for the rearing of a family.¹

All these features contribute their share to the higher birth rate and to the growth of Indian population. As for present growth of population, all this is true. We may summarize here the causes that account for the remarkable growth of population generally, and particularly in the last two decades :

1. The relatively peaceful conditions prevailing in the country.
2. The increasing improvement in the census organization.
3. The gradual improvement in health measures as compared to earlier decades.
4. The increased acreage under irrigation.
5. The universality of the married state in India.
6. The large percentage of married women to total women in the reproductive group.
7. The comparatively early age at which reproduction begins.
8. Ignorance of the existence as well as the unavailability of cheap and reliable contraceptives.
9. The influence of certain Indian social institutions like caste and the joint family on the birth rate. The joint family serves as an incentive to higher birth rate because it does not insist on the economic stability of the husband as a prerequisite to marriage. If the Babu family should survive, many Babu babies should be born!
10. The psychological drive—the incredible poverty and the low level of living which offer no pleasure in life save that of sexual intimacies.

UNIVERSALITY OF MARRIAGE

The major factor in Indian demography is the universality of the married state in India. For the last fifty years, the proportion of the married to the unmarried has not changed, and today India has the lowest proportion of unmarried in both sexes. "In 1931, 407 males and 493 females out of every thousand were married ; taking widowers and widows, ascetics and mendicants into account, this means that almost every person of marriageable age was actually married."²

In Western countries, romance (the assumption of love as a prerequisite of marriage), economic considerations, prolonged education and training, eagerness for personal and social advancement—all these contribute to postponement of marriage to a comparatively late date. Religion not only does not condemn celibacy, but has a kind word for it. The current social attitudes do not disapprove of those who never enter the married state. So many do not marry just for the sake of marriage. The pressure of these considerations may and often does result in many remaining spinsters or bachelors.

¹ Warren S. Thompson, *Population Problems* (New York : McGraw-Hill, 1942), p. 39.

² Gyan Chand, *India's Teeming Millions* (London : Allen and Unwin, 1939), p. 134.

But in India there is no chance for love to play any significant part in marriages. Marriages, by and large, are arranged by the parents, and the majority are just herded into the married state. Economic stability of the bride-groom has never been a primary consideration in contracting a marriage. Of course, the parents-in-law are anxious to see that the son-in-law is not unemployed, but his unemployment is not a positive disqualification, since the resources of the joint family are available for the support of the newly married couple. Religion does not encourage celibacy, for a Hindu, if he is a strict one, must have at least a son. But it is not really the fear of religious ostracism that is behind this urge to get married. It is the disapproval of society as such that explains the universal prevalence of the married state.

SEX COMPOSITION

The sex ratio has several important socioeconomic bearings. Women generally have a lower death rate than men because nature has equipped them better to meet diseases. Organically it is man that is the weaker vessel. So if women are less than half the total population, the crude death rate of the whole population will be effected unfavourably. The scarcity of women sometimes leads to prostitution and other social problems, though it may seem paradoxical that any society that cannot provide mature brides for all its adult men can spare some women for purposes of prostitution.

Table 2 shows the sex composition of the Indian population for the last eight census. The striking deficiency of women is in sharp contrast with several European countries and the United States, where males are comparatively scarce.

TABLE 2

Census Year	Females per 1,000 Males	Census Year	Females per 1,000 Males
1881	950	1921	940
1891	960	1931	940
1901	960	1941	934
1911	950		

Relative scarcity of females has been a striking characteristic of India's population within the knowledge of her regular census history. According to the 1941 census, there were only 934 females for every 1,000 males as compared to 940: 1,000 in the 1921 census. Dr. J. H. Hutton, the Census Commissioner for 1931, observes:

The figures of population of India by sexes show a further continuation of the steady fall in the proportion of females to male that has been going on since 1901. The female infant is definitely better equipped by nature for survival than the male, but in India the advantages she has at birth are probably neutralized in infancy by comparative neglect and in adolescence by the strain of bearing children too early and too often.

Dr. Hutton also admits the faulty enumeration of females as a contributing cause in giving low figures for female population though the source must account for only a very small error.

The figure is for all India, and the sex ratio varies from province to province. The disparity is least in the Madras Presidency. The proportion of females to males becomes less as one proceeds from south and east to the north and west of India. Let us look into this phenomenon a little more closely.

REASONS FOR SCARCITY OF FEMALES

Several factors explain this striking paucity of females in the total population. The social attitudes in the country are such that a female baby is looked upon as a liability, whereas the male baby is welcomed as an asset. This attitude arise out of certain obscurantist factors inherent in the Indian socioeconomic order. So a girl in her infancy is treated with a wholesome neglect—neglect nevertheless. Care and attention in her upbringing, especially when beset by infantile ailments, are conspicuously absent. Then there is the simple natural fact that more male babies than female babies are born. Why this is so cannot be examined here, for this biological trait has some undefined relation with climate, diet, soil institutions and the pursuit of values.

There are certain regional conditions affecting the death rates which afford a partial explanation of this sex ratio. As Radhakamal Mukerjee points out :

In the plague regions of India, the malady appears to bear more savagely on females than on males. Similarly, in malaria-haunted zones, malaria appears to exercise a selective lethal influence on women. On the whole where economic pressure is more severe and the women are exposed to the hardships of struggle with the soil and climate, as in the zones of precarious rainfall, there is a striking and permanent paucity of women.*

Early marriages, if not quite child marriages, worsen the initial balance of births in favour of male babies. This early marriage is generally expected to increase the birth rate. On the contrary, the effect is often the very opposite. The ratio between males and females, in the age group 0-5 is favorable to females, but is gravely upset by early marriages, because of two undesirable features of Indian demography. One is the terrific maternal mortality, and the other, the ban on widow remarriage.

As for maternal mortality, the figure is shocking : One hundred out of every thousand girl wives are doomed to die in childbirth. On the average, 200,000 mother die every year during childbirth or from ailments connected with it. More common than this death of young mother is the death of women during a little later period of maternity—between ages 25 and 35. These deaths are brought on by the physical exhaustion, the nervous breakdown, which follows in the wake of premature child-bearing.

Ban on widow remarriage.

The second undesirable feature is the social ban on widow remarriage. More than 15 per cent of the women of the reproductive age (15—45) do not generally reproduce, for they lose their husbands long before they reach the end of their reproductive period. This means that about twelve million women do not participate in active motherhood. Some of them do not taste the fruits of sex intimacy at all, for they are virgin widows, and the existing social attitudes do not encourage their marrying again ! And some of those who have experienced marital happiness are suddenly deprived of their husbands while still young. Their normal physical cravings, whetted by initial and inviting experience, are left unsatisfied. The consequent emotional poverty in the lives of some millions of young Indian women cannot be adequately expressed in any sociological terms. A few do escape the social disapproval by indulging in clandestine sex intimacies with men who are not their husbands. But this is

*Radhakamal Mukerjee, *Food Planning for Four Hundred Millions* (London : Macmillan, 1938), p. 234.

quite different from approved prostitution, and so, when discovered, the social tyranny that descends upon the erring individual is unbearable. The grave injustice to the normal and healthy development of Indian womanhood serves as a preventive check to the population, by withdrawing potential mothers from participating in reproduction.

This practice of "socially sterilizing" the widows results in certain undesirable features in Hindu society. While widows, irrespective of age, are prohibited from marrying again, widows of all ages are permitted to, and do, marry. Now this double standard of morals created and maintained by the Hindu male results in considerable disparity in age between husbands and wives. Since most widows marry, and since they cannot marry widows, they have to seek wives among girls much their juniors. If a forty-year-old widower wants to marry, he cannot marry a women aged thirty, for a woman at that age is either already married and living with her husband, or a widow. He cannot marry even a girl of twenty, for she may be already married. So he will have to marry a girl from fourteen to eighteen years of age. This unequal combination from the point of view of age itself leads to increasing numbers of widows; for the old husband soon passes away leaving behind his very young wife—a widow. And she cannot marry, of course.

In brief, unmarried and widowed Hindu men have to take brides of any age that they can get. Young man of twenty to twenty-one, as well as older men of forty to fifty, have to choose brides from girls aged thirteen to twenty, roughly. The natural result is that some of these girl brides survive their much older husbands. The paucity of females keeps up the custom of early marriage for girls. Early marriages lead to considerable disparity in age between husbands and wives. This difference in age increases widowhood. Since widows cannot remarry, widowhood increases the shortage of eligible brides, which means, of course, the paucity of females. Thus the vicious wheel whirls on.

Caste system

— Another factor that worsens the situation is the caste system. This institution cannot be discussed adequately in this paper, but it must be pointed out that caste enhances the already difficult situation of scarcity of females. In caste, the field of choice for brides and bridegrooms is definitely limited. In a particular caste it is possible that there may be comparatively more females of the reproductive age than males of the same age group. As men from other castes do not marry these surplus brides, the problem of every adult male to find a bride of a suitable age in his own caste becomes acute.

The caste system affects the situation adversely in another way, also. If we may accept the results of some recent studies, excessive masculinity in the sex ratio of a population group must be taken as a result of inbreeding. Caste, with its insistence on endogamy, promotes inbreeding. Though this phase of the problem has not been examined in detail with reference to conditions India, it may partially explain the deficiency of females in the Indian population.

Problems raised

This uneven sex ratio does not make for social repose or communal harmony. Apart from the dysgenic effects of illmatched marriages, leads to graver problems. The marked increase in abduction of women—not kidnapping for the sake of ransom money—in recent years, particularly in Bengal and the Punjab, has created one

of the disquieting social problems in India, though its gravity has consistently been minimized.

These facts are not new. Every census report harps on the same tune. They are discussed, debated and decried by all enlightened Indians. There are any number of individual social reformers and progressive associations working for the abolition of these evils. But progress has been slow and slender. A great headway, therefore, has to be made before any substantial results can be achieved.

THE RURAL-URBAN RATIO

A formidable reason why reform has been slow in this direction is to be found in another characteristic feature of the Indian population. It is the rural and urban ratio. An overwhelming majority of the Indian people live in about 700,000 villages.

The feature of a vast majority being a rural population presents several obstacles in the path of reform. It is true of almost every country that the rural population is agricultural and feeds the nation, but generally enjoys fewer benefits from the governmental services than the urban population. In towns and cities people follow nonagricultural and money-making pursuits like industry, commerce and trade, and liberal professions, and have ready access to comforts, conveniences, and luxuries that are beyond the reach of the rural population. Who has ever heard of an agricultural millionaire living a life comparable in any way to that of an urban industrial magnate? Even from a broad cultural point of view, a nation's political, social, and educational movements that constantly stir the people into thought and action center around the cities. Most of the nation-building services are concentrated in the urban areas. Large general hospitals, specialized and advanced clinics with the latest equipment, universities, colleges, and seminaries, recreational facilities like parks, sports, games, and swimming pools, and public utilities like gas, electricity and water—all are within easy reach of our city population.

The Indian census, unlike the American census, makes no clear-cut definition of an urban area. In most cases the decision is left to the superintendent of the census district. But it is usually taken that a rural area is one whose population does not exceed 5,000. Villages which have a population of more than 5,000 people are classed as towns, and towns with 100,000 or more inhabitants are termed cities. Table 3 reveals how little progress has been made toward urbanizing India.

TABLE 3—THE RURAL URBAN PERCENTAGE OF POPULATION OF INDIA

Urban	Rural	Census Year
1872	91.28	8.72
1881	90.59	9.41
1891	90.54	9.46
1901	90.21	9.79
1911	90.65	9.35
1921	89.70	10.30
1931	89.00	10.00
1941	Fifures not available	

IMMOBILITY OF POPULATION

Several factors—social, economic, and religious—distinctive of Indian economy can be cited to explain not only the meager growth of cities but also the existence of comparatively few towns and cities in India. The most striking explanation is the general immobility of the Indian population. In no other country is the population so immobile as in India. The comparative stay-at-homeness of the Indian people is

cent of the people are enumerated in districts in which they were born. Another 5 per cent are enumerated in adjoining districts which are more industrialized or urbanized than the district of their birth. In 1901, only 9.27 per cent of the total population was enumerated outside the district of birth. In 1911 this percentage fell to 8.7, and in 1931 this ratio was repeated. Though exact figures are not available for 1941, there is no reason to expect any radical change, for during the last decade there has been no significant interprovincial migration.

The economic reason for this immobility is simple. As the majority of the people are wedded to an agricultural life and since land is the chief source of sustenance, the average Indian cannot possibly leave the farm on which he was born and wherein he works. It is not that agriculture in India is such a paying proposition that renders rural exodus impossible, but the absence of a better calling to take its place. In India, agriculture is not just an occupation; it is a way of life. Then there is an incredibly large rural indebtedness that chains the peasants to their mortgaged homesteads. Even if the average agriculturist is ready to forsake his traditional calling, what alternative is there for him to make a living? Availability of, as well as adaptation to, a new vocation is neither easy nor smooth.

Certain social factors also contribute to this essential home-loving character of the Indian people. Caste and other social institutions render severance from home village or town uncomfortable. Migration to another province or even to a city may mean an unfamiliar life among people—albeit Indians—who may speak a different language, eat a different kind of food, and have different habits and customs.

Finally, migratory tendencies are exhibited largely in small units of population. The smaller the unit of population, the greater the proportion of persons born elsewhere. The fact that India shelters nearly a fifth of the human race militates against any free mobility of the population, though this may seem paradoxical.

LITERACY

What about the educational composition of this population? We cannot go into this question of education at any length. We can only touch the problem of literacy in India. What with the great majority of the population being rural and with the absence of a national network of rural schools, the problem of literacy has proved to be a formidable one.

A proper comparison of literacy figures must be based on specific age groups. Infants and children up to four or five years must be excluded in any calculation of literacy figures. What is more, the real task ahead of any country is to make at least all new arrivals literate and to ignore those above fifty or sixty years of age who are illiterate. But such calculations are not possible with the limited data of age groups that are at our disposal for the present population. For the population as a whole, however, the percentage of literacy has been improving. There were only 80 literates per 1,000 in 1931, as against 120 per 1,000 according to the 1941 census. Literacy has been defined by the Indian census authorities as the ability to read and write a post card in one's mother tongue. This increase in literacy is noticeable particularly in Bombay, the Central Provinces, and Travancore.

This figure of 12 per cent literacy does not show the differences between males and females in this regard. Male literacy has always been higher than female literacy

in India. In the 1941 census, the gross figure of 120 literates for every 1,000 of total population is made up of 195 for men and 52 for women.

Let us look at this Indian progress in a world setting. Half of the human race, that is, considerably more than a billion people, can neither read nor write. About a third of these illiterates are under the Union Jack in India. The percentage of literacy in India, of course, seems to show gradual increase from census to census. Between 1921 and 1931 she gained 1 per cent of literacy, and between 1931 and 1941 she gained 4 more per cent. But the present figure of 12 literates per 100 is really not an improvement, if we forget percentages and look into total figures. In 1931, in round figures, we had 23 million literates (23,484,200), and in 1941 the number rose to 47 million (47,322,700). That is, during the last decade, 23 millions more were made literate, showing a flattering increase of 101.5 per cent.

But the illiterates increased more than the literates. In 1931 we had 315 million illiterates and in 1941 the figure rose to 341 millions, despite the percentage increase in literacy. The simple answer to this is the high birth rate and the absence of concerted measures to make the people literate. Roughly, India must make 35 millions literate within a decade if she wants to keep up with her birth rate. In other words, India must make 3.5 millions literate every year to hold her own, but actually only about a million become literate. We cannot stop the growth of population, nor is it advisable merely on this score. We must have more schools and teachers to take care of the new arrivals, at least.

We need not go into any elaborate comparison of literacy figures between India and other countries of the world, but we must point out what has been achieved elsewhere among conditions that were comparable to India's. Between the two World Wars, Russia has taken magnificent strides in this respect. In czarist Russia, before the end of the last war, 78 per cent of the Russian population was illiterate. Today, twenty-five years later, in the Soviet Union less than 8 per cent is illiterate. The American rule in the Philippines has an equally good record. In forty years illiteracy was cut down from 98 per cent to 45 per cent. India, after nearly two centuries of British rule, has made no improvement to deserve the word "progress."

The vital relation between literacy of a vast population unit and its democratic aspirations has hitherto been sadly ignored in India. A cynical explanation has been that India is not self-governing and not democratic, so why bother about the literacy of the people? As M. W. M. Yeatts, the Census Commissioner for 1941, rightly remarks:

A democratic system and a mainly illiterate population go ill together and in some cases are very nearly a contradiction. So long as a man cannot read for himself he can form his judgments outside his own field of experience only from what he is told. Hence the enormous powers laid in the hands of the leaders the bulk of whose followers are uninstructed. It is true that the mass mind can operate in a literate population quite as powerfully as in an illiterate one as we have seen in Germany; but this does not affect the main point that a democratic system based on heads is incompatible with a predominant illiteracy, and some credit must be given, I think, to a stirring of a consciousness among people themselves that the two features do not go together. Such a stirring is a portent to be welcomed.*

*M. W. M. Yeatts, *Census of India, 1941* (New Delhi : Gov't of India Press, 1943), Vol. 1, Part 1, p. 32.

RELIGIOUS COMPOSITION

The proportional strength of the main religions in India—an ordinary feature of formal demography—has become in recent years a major bone of contention in national political squabbles and even in international political relations. The fact that the people of India profess several religions from Animism to Zoroastrianism often threatens to disrupt Indian political life and encourages separationist tendencies. Today it has almost driven a wedge in an otherwise tolerably homogeneous character of the Indian population. This religious composition has also brought into existence, unfortunately, a pseudo-minority problem. But happily, unlike in Europe and in America, this minority problem is not a racial one.

In all democratic countries, political development has been through party government based on political and economic ideologies. Thus, we have communists, conservatives, democrats, laborites, socialists, and so forth. And a communist or a conservative may be Catholic, Protestant, Moslem, or agnostic. In India, unfortunately, political parties (except the leading, progressive, and representative Indian National Congress) are based on religious affiliations. Thus, some Moslem democrats, socialists, and communists are encouraged to get together into political party, like the Moslem League. Some Hindus of all economic and political ideologies get together and call it the Hindu Mahasabha. These religious parties go on proliferating into further groups on principles that will amaze any political scientist.

This reactionary feature of Indian political development has gathered strength in recent years to the extent of threatening the very geographical unity of India. Several historical-cum-cultural factors can explain this obscurantist development. A future historian may speculate on apportioning the blame to the British Government in India, separate electorates, communal franchise, intransigence of certain Indian political leaders, economic tension, cultural conflict, down to a mere fight for jobs. Unfortunately, a detailed study of this fascinating but painful subject is beyond the province of our discussion. This has been said because to the average Western reader, the question of religious composition of the Indian population is inextricably tied up with the Hindu-Moslem problem, Hindusthan versus Pakisthan and other-stans, and a score of other minor mal-adjustments of Indian political development.

Apart from this artificially injected political import, the religious makeup of the Indian population is of some interest from a demographic point of view. Different religious groups may have different birth rates. Differences in religion may mean in some countries differences in language and even in nationality, though this is not true of India. Educational levels, economic security, and occupational distribution may be explained to a limited extent on the basis of religious differences.

Several interesting questions may be explained in terms of the religious composition of a particular population unit. Why do the Hindus and the Catholics have a higher birth rate? Why do the Moslems dominate the hides, skin, and leather industry? Why do the Parsis have the higher percentage of literacy, and the highest percentage of population supported by industries? Why are the Sikhs such good fighters and skillful mechanics? All these questions may be answered from a religious point of view alone.

A study of the last six census returns reveals that roughly, out of every hundred persons in India, 68 are Hindus, 22 Moslems, 3 Buddhists, 2 Animists, 1 Sikh, and 1 Christian. Of the remaining three, one may almost be a Christian, the other on the verge of being a Buddhist, and the third probably a Jain. Table 4 gives the percentages of population that profess the chief religions of India.

TABLE 4—RELIGIOUS COMPOSITION

Religion	Percentage						
	1881	1891	1901	1911	1921	1931	1941*
Hinduism	74.3	72.3	70.4	69.4	68.6	68.2	65.7
Buddhism	1.4	2.5	3.2	3.4	3.4	3.7	2.5
Jainism	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Sikhism	0.7	0.7	0.8	1.0	1.0	1.2	1.1
Islam (all sects)	19.7	20.2	21.2	21.3	21.7	22.2	24.2
Christianity (all denominations) ...	0.7	0.8	1.0	1.2	1.5	1.8	1.4
Others	2.7	3.2	2.9	3.3	3.1	2.5	4.7

PUBLIC HEALTH

As for public health, the situation is extremely unsatisfactory. How many diseases are controlled and how many needless deaths are cut down? Is India a healthy nation? The following facts reveal a deplorable state of affairs, and they need no comment.

The expectation of life at birth in India is less than 27 years, or less than half as many years as in America and Britain, for it is 58 in the United States and 56 in Britain. But India has a high birth rate. In 1940 the birth rate was nearly 35 per 1,000 against 17.9 in the United States and 15.0 in Britain. It may look as though India were trying to make up for its loss of years in expectation of life and its comparative lack of longevity by having too many babies. But unfortunately the infant mortality rate in India is terrific. The death rate of infants under one year of age is 164 per 1,000 live births, as against 55 in the United States and 57 in Britain. When the Indian mother has come safely through the ordeal of childbirth, what are the chances that she may be spared to grieve over a child stillborn, blind, imbecile, or healthy for a short time only and then to die?

Apart from the future of the babies who survive their first year, the plight of these mothers is tragic. Right in the process of giving birth to these children many mothers die, or are disabled or just left in a condition less than half alive. On the average, about 200,000 mothers die every year during childbirth and some 10,000 become invalid as their reward (or is it price?) for bringing life to the country. In the United States, with a third of India's population, only 14,000 women die annually during pregnancy and childbirth, and this figure is being rapidly brought down.

The general Indian death rate is high, just as is the birth rate (which, incidentally, means that the survival rate in India is comparatively low). Taking the little babies that are carried to the graveyard in little yellow cradles, mothers, and men and women, the death rate in India is 24.3 per 1,000 for 1939, the latest year for which

* Based on provisional figures only.

figures are available. In the United States, the figure is less than 12 and for England it is 12. India's death rate is double that of America or England.

Causes of death

The figure 24.3 for the general death rate is a fair indication of the state of affairs, although one must be cautious in accepting the assignment of causes. Fever is given as the cause of 14.1 deaths per 1,000. The word "fever" in India is very elastic, for most of the deaths unattended by doctors or undiagnosed otherwise are returned as caused by fever. Instances are not lacking where deaths from insect bites and deaths due to drowning have been returned as caused by fever—an all-inclusive term in Indian public health. The Public Health Commissioner of the Government of India, in his annual report, year after year demands more accurate returns; for no effective health policy can be framed without analyzing what diseases are responsible for the deaths which the authorities are seeking to control.

Thus annually, on the average, India loses nearly 4,000,000 persons from fevers, of which malaria alone accounts for more than 1,000,000. Cholera, plague, and smallpox account for 400,000 deaths, of which cholera alone claims about 200,000 victims every year. Dysentery and diarrhea take a toll of nearly 300,000 deaths. Respiratory diseases claim nearly 500,000. All other causes, including accidents, social diseases, and snake bites, account for 1,500,000 deaths annually. All told, more than 5,000,000 people die annually from preventable and curable diseases.

Leprosy and blindness

Nor is this all; it is only a tiny part of the gigantic human erosion in India. Leprosy is still left largely uncontrolled. In 1940 there were reported 147,911 lepers. But this is definitely an under-estimate. According to certain reliable estimates and particularly the one given in the comprehensive report on "Leprosy and its Control in India" by the Central Advisory Board of Health of the Indian Government, India has more than a million lepers, though this number includes mild cases. In some highly infected areas the incidence is as high as 5 to 10 per cent of the total population. That is, out of the three million lepers in the world, India, with a fifth of the world's population, claims more than her share by having within her frontiers a third of the victims of this dreadful disease. China suffers with India in this respect, for she has a million lepers; and the third million is accounted for by all the other countries. In the whole of India, the Government and private and missionary efforts provided relief in 1940 for fewer than 22,000 lepers. This means that more than 80,000 lepers neither take residence in leprosariums nor get any medical treatment. Most of these unattended thousands, in all stages of this scourge, eke out a miserable livelihood begging on the streets and sleeping on the pavements, spreading the disease by infection. One cannot travel more than a few blocks in any large city in India without encountering these lepers, begging for charity.

Then there are 601,370 blind persons in India. This is according to the census for the latest prewar period, and, as such, does not include the war blind, which figure will be available only at the cessation of hostilities. But according to estimates made by Sir Clutha Mackenzie, Sir John Megaw, and the International Association for the Prevention of Blindness, in 1937, the figure of the blind in India was in the neighbourhood of 1,500,000, and that of the partially sighted is three times this figure.

That is, there are roughly three blind for every thousand persons of all age groups. Keratomalacia and trachoma are the common ailments that cause this total darkness in Indian life, and much of this is preventable. Apart from a few sporadic schools for these blind, there has been no national effort to rehabilitate the lives of these people, to enable them to take an independent and useful position in the community in which they live.

The tragedy of it

These combined factors indicate the grim tragedy that human life in India is. It is a tragedy because medical progress in India is largely an illusion in comparison with that in other countries. Thousands of cases which now result in death are preventable and curable.

This is not all. There are some millions in India whose sickness and suffering do not enter into tables because they undergo no treatment and hence do not come to the notice of public health authorities. These are the men and women who have no chance of a clinical consultation or a doctor's attendance, a dose of a drug or an ounce of a mixture in a lifetime; life always culminates in distress and leads to unhappy endings.

To the sensitive, the plight of these people is as distressing as are the helpless hands of the drowning, as the pitiful screams of victims trapped in burning buildings. But into human conservation, sentiment must not enter. There is no yardstick to measure the heartbreak and sorrow of needless human suffering. It is not sympathy or pity, but the appalling human erosion that concerns us here. It is the enormous loss of national health that can be counted, the suffering that can be combated by scientific methods, and happiness that can be channeled into rich reservoirs of human strength. These hundreds of thousands of men and women add to the final roll call of India's national disgrace. Their condition is disgraceful because their sufferings and deaths are, by now known science, either wholly unnecessary or to a greater or less degree preventable, controllable, and curable.

In a word, the population problem is stated in the total negation of the words of Whipple: ". . . a nation's true wealth lies not in its lands and waters, not in its forests and mines, not in its flocks and herds, not in its dollars, but in its healthy and happy men, women and children."¹

WHAT OF THE FUTURE?

What is likely to be the future growth of this population? Will it continue to grow, or remain stationary, or tend to decline?² On certain assumptions and on the basis of current trends, forecasts may be made on the probable population figure say in 1951, when the next census is due. But such a forecast is unnecessary for our purpose here. We discussed in the foregoing pages certain major features of Indian population, and any peep into the future must be based on the realization of the importance of these features. Whether these factors are desirable or undesirable need not detain us here. We take them such as they are, as demographic facts. We have

¹ George Chandler Whipple, *Vital Statistics* (New York: John Wiley & Sons, 1923), p. 10.

² A discussion of some aspects of this question may be found in P. M. Lad on "Population" in *Economic Problems of Modern India*, edited by R. Mukerjee (London: Macmillan, 1939-41).

not made any detailed examination of crude or corrected birth, death, or survival rates. Nor have we discussed the age composition of the population or the net reproductive rate. All these are beyond the limited scope of this paper. But on the basis of the chief and somewhat unique features of Indian demography we can draw certain inferences not of present trends but of future growth.

In drawing such an inference, we must recall: (1) the predominantly rural character of the population; (2) the married state of the adult population; (3) the paucity of females and the decreasing proportion of women to the total population; (4) the relatively smaller number of women at the reproductive age; (5) the low specific fertility of these women; (6) the large number of widows who are not expected to, and do not generally, remarry; (7) the high birth rate and the high death rate and the unsatisfactory condition of Indian public health.

Population policy

These features do not reveal a desirable state of affairs, and therefore some attempt should be made to remedy this. What, then, about a population policy for India? We venture to make the following suggestions:

The Government of India should appoint a Population Commission with wide terms of reference to inquire into and report on the various aspects of the Indian population problem. We shall assume that one of the major recommendations of such a commission would be to create a Ministry or Portfolio for Population Affairs. Such a Population Ministry would have four bureaus under its charge.

1. The first would be a Bureau of Adult Rehabilitation. This bureau would aim at rehabilitating adults of both sexes who are less than 45 years of age. These young and middle-aged men and women are the breeding stock, and their health education, and welfare are important to safeguard the future population.

2. The second would be a Bureau of Marriage and Eugenics. This would attend to the reform of Hindu marriage ideals, legislation of a uniform Indian marriage law, legalization of divorces, insistence on prenuptial medical examinations, banning of child marriages, medical and eugenic supervision of marriages to prevent matings likely to produce inferior offspring through both heredity and environment, provision of prenatal and postnatal medical aid to mothers, and introduction of birth control facilities for spacing children on grounds of both economic security and mother's health and would make an attempt at a negative eugenics program by sterilizing the insane, the feeble-minded, and the habitually anti-social. This bureau would also promote intercaste, interprovincial, and interreligious marriages.

3. The third would be a Bureau of Growth and Nutrition. Its function would be to supervise the medical, physiological, psychological, and nutritional care of the entire population from the cradle to the grave. It would seek to provide general medical, orthopedic, and psychiatric help to the needy. It would create national leprosariums, sanatoriums, and special clinics for the afflicted, and explore recreational resources for all.

4. The fourth bureau would deal with educational and vocational guidance and would be charged with the task of fitting the individual with a minimum liberal education based on a curriculum suited to the individual's ability, personality, and social adaptability.

This is a tall order for India, as this seems to be more ambitious than even a Beveridge Plan. India's resources are fundamentally good, but they should be conserved with care and foresight if disaster should not befall India by the time the next census is taken.

Of course a national population policy like the one we have envisaged can be put into effect only by a national popularly elected government which has the interests of the Indian people at heart. This means India's political freedom which needs no elaboration.

S. Chandrasekhar, M. Litt., Ph. D., is a member of the faculty of the Department of Oriental Studies at the University of Pennsylvania, Philadelphia. He was formerly Research Fellow in Economics at the University of Madras, India and has done research work at Columbia, Princeton, and New York Universities.

Nutrition and Health in India

By B. C. Roy

THE problem of nutrition and health of the people of this country necessarily varies widely in the different parts of British India, which covers an area of 1,096,171 square miles with 500,000 villages¹ and 1,700 towns, and which has a population of nearly 300,000,000, with their diverse ways of living and food habits. As we attempt to consider this problem, the one fact affecting nutrition and health which stares us in the face is the universal poverty of India. Most of the dumb millions of this vast subcontinent live but little above subsistence level.

If we take the census figures of the last sixty years, we find that the population in British India has increased from 200,000,000 in 1811 to nearly 300,000,000 in 1941. Is this enormous increase in population due to an increase in the birth rate or to a decrease in the death rate and a lengthening span of life of the individuals? If owing to better nutrition and improvement in public health and welfare, expectation of life has increased and the death rate has been lowered, resulting in an increase in population, then such an increase is an asset to the country. If, on the other hand, this increase is merely due to a higher birth rate without a corresponding lowering of the death rate or increased expectation of life, then this increase in population is significant proof of the deepening poverty of the people; for it is a well-known law that with increasing poverty the birth rate increases.

COMPARED WITH WESTERN WORLD

Let us now consider some figures showing the position of India from the nutrition and public health point of view and compare them with those of Western

¹ These figures relate to British India only; if the Indian states are included, the area for the whole country is 1,808,676 square miles with 700,000 villages and a population of about 400,000,000.

countries. Admittedly in these countries the national income has increased within the last fifty years owing to the rapid advance in scientific knowledge and its application, technical progress in industry and agriculture, improvements in transportation, and development in banking and credit. Naturally in these countries, social conditions of the lower income group have improved; the national diet has increased in quality and quantity. Important recent advances made in the knowledge of nutrition and sanitation have been employed in these countries with success in improving the health and happiness of the people, and under such circumstances with a lowered death rate and an increased span of life an increase in population is an asset. In these countries, improvement in the economic and medical fields has brought about remarkable changes in the health of the citizens as is evidenced by the fact that the expectation of life at birth for the average German increased, between 1870 and 1925, from 35 years to 56, that of average Englishman from 41 years to 55, whereas the average expectation of life in India was 25.54 in 1891 and only 26.56 in 1941.

If, again, we compare the mortality tables for infants, we find that out of 100,000 born alive, nearly 50 per cent die within the first five years in India, whereas the corresponding figure for England is 20 per cent, for Germany 25 per cent, and for the United States 18 per cent. The figures for maternal mortality during the last twenty-five years tell the same tale. In some places in India, 40 mothers die after childbirth per 1,000 live births.

Surveys made by various agencies of the health of school children in different towns in India show that the vast majority of them are handicapped from birth and either show signs of disease or have subnormal health. On the other hand, successive reports of the public health commissioners for India show that the measures undertaken so far to prevent the incidence of infection and to ensure better sanitary conditions in the rural and urban areas are very insignificant. Take, for instance, the problem of malaria. It is reported that in 1937 there were on a rough calculation 12,500,000 cases of malaria in India. "In Bengal," says the report, "it was estimated that over 60 per cent of the population suffered from the disease each year and roughly about 1,000 people died from it every day in the year." The report goes on to state that only about 40,000 pounds of quinine and cinchona, the manufacture and sale of which are controlled by the Government of India, were issued by the Public Health Medical Aid and other departments of the various provinces in British India in 1937—a quantity hardly sufficient to treat more than one-half million people suffering from malaria.

This shows that no general improvement in public health measures has occurred within the last few decades and measures undertaken to combat preventable diseases have been very inadequate. Under such circumstances, the steadily growing population of India, with a per capita income of £ 4 a year, the lowest in the world, constitutes a disquieting position. Such increase in population, instead of being an asset, is a liability to this country.

Further, it is well known that the factors which are responsible for the incidence and death from a disease also reduce the efficiency of the adult worker. If we consider, for example, the efficiency of a weaver in Japan or China, the evidence before the Labour Commission shows that a weaver in Japan manages six looms and his

efficiency is 80 per cent; the Bombay weaver can tend only two looms and his efficiency is 80 per cent. Sir Alexander McRobert stated before the Industrial Commission that an English worker is four times more efficient than an Indian worker. Although efficiency in a worker may be traced to various other factors, there is no doubt that his health and nutrition play a significant part.

ATTITUDE OF EXPERTS CHANGED

During recent years, the attitude of experts toward health problems has undergone remarkable changes. It is now conceded that it is not enough to ensure such alterations in environmental conditions or to adopt such methods for cure of diseases as would increase the average expectation of life or reduce the total mortality figures, but that positive measures should be taken in an increasing extent, particularly in the case of parturient mothers and children, so that future generations, at any rate, will be healthier and will develop increased resistance to diseases. A healthy mind can fully grow only in a healthy body, is an apt saying.

Recent advances in the knowledge of nutrition, though imperfect, have taught us, for example, that vegetable proteins do not have the same nutritive value as animal proteins—particularly for the construction and repair of the body tissues; that mineral salts and vitamins play important roles in maintaining nutrition and that their absence may produce various deficiency diseases, such as rickets, scurvy, and tuberculosis; that, according to various clinical and experimental evidence, dietetic deficiencies, both in quality and quantity, produce disturbances of health whose effects may be far reaching and prolonged; that there are certain foods called by McCollum "protective foods," such as milk, eggs, fruits, and vegetables, which protect the consumers against subnutrition and malnutrition; and that diets of mothers and children have to be more correctly supervised as on them the good health of the nation depends.

VARIATIONS IN FOOD HABITS

India is a vast country and though we find here a few who have the means to get what food they want, there are many who do not get two square meals a day. But apart from variations in food habits due to wealth or poverty, the people in the various parts of the country differ in their habits and mode of life, in the food which they eat and the drinks that they have—differences which have grown through ages. The rice-eating Bengali, the strictly vegetarian Madrasi, the wheat-consuming people of the United Provinces, and the meat-eating people of the Punjab and North-West Provinces present distinctive problems of their own from the nutritional standpoint.

Climatic conditions, the humidity, the fertility of the soil for growing varieties of crops in different areas have no doubt influenced the adoption of particular food habits in these places. For example, the staple food of East Bengal is fish; the habit has grown because this part of the deltaic province remains under water for many months in the year, when no food is available but the rice, pulse, and potatoes which have been stored and the fish from the streams. Besides fish, rice is the staple food of Bengal, because paddy grows luxuriantly in these deltaic regions. The particular selection of food by the Bengali may also be partly due to the physical necessity of taking food with plenty of moisture in it, which the humid atmosphere of Bengal demands.

In the dry upper provinces such physical necessity of taking food with a great deal of moisture is not felt so keenly. Fish is difficult to procure in these provinces ; wheat grows plentifully and supplies the necessary proteins. Such, then, is the unconscious food habit formed by the inhabitants of different parts as a result of experience. It is difficult to say whether the type of food consumed in a particular area has been evolved on account of the suitability of the area for growing particular types of crops which the inhabitants like, or whether such variations in food consumed have been the result of the people's unconscious adaptation of their food to the varied climatic conditions.

Full advantage should be taken of recent developments in knowledge regarding health and nutrition and further investigations should be made in each province to find out the standard of nutrition of its people, the deficiency, if any, in the essential properties of the food they consume, either in quality or in quantity. Such researches into the economic and nutritive value of foodstuffs should yield valuable results which could be utilized and applied in every-day life. Such knowledge as we gather should be widely disseminated among the people. For this purpose, health clinics in and outside schools should be established. A centralized and co-ordinated health and education department should be established which would prepare and issue memoranda in simple language giving instructions to the people on problems of nutrition.

On the local authorities should be cast the responsibility of spreading such knowledge in the urban areas, and more particularly of imparting such knowledge to mothers and older school children. Wherever possible, provision of milk and of meals, either given free or at reduced cost for poorer people, should be encouraged. In Calcutta and other big cities in India, a beginning has been made, but it requires an all-India central planning agency to develop the scheme. A high standard of physical well-being is the greatest asset of the nation.

APPALLING CONDITIONS OF RURAL AREAS

- It has to be remembered that nearly 90 per cent of the people of India live in villages. Agriculture is the main source of income of the people. The hygienic condition of these villages is appallingly bad and millions live and die in ignorance, apathy, and disease. The incidence of diseases like malaria among these rural people is very high and their low resistance due to malnutrition and subnutrition makes them easy prey to the disease. Therefore, an enlightened and planned health program for rural people will not only increase their resistance to disease but reduce mortality and ensure a fuller and happier life for the bulk of the citizens. The planning should be such as to evoke the active and willing co-operation of the people so that when official or central voluntary agencies cease to function each village community of an area will continue the work. Such a plan should, besides ensuring better rural health, deal with various forms of welfare work in the villages, e.g., improved agriculture and animal husbandry, better village communications and general development of village corporate life, all of which are essential for the enrichment of village life.

The average Indian suffers so much from subnutrition and malnutrition that he falls an easy victim to disease and death, his earning capacity becomes reduced, he starts life with a handicap and fails ignominiously in this hard, competitive world; such predicament is mainly due to the fact that the nutritional value of the food he

gets and consumes is very low. Not only should food be of sufficient nutritive value, but it must be procurable in the country; not only should the people understand the value of such food, but they should be in a position to purchase it in sufficient quantity and suitably varied to provide the requisite calories and the necessary amount of mineral salts and vitamins. Economics of the people is, therefore, a factor which profoundly influences nutrition and health.

The per capita annual income of an Indian is only £4, whereas it is £87 in the United States, £71 in the United Kingdom, £39 in Germany and £41 in France. The figures speak for themselves. On the other hand, lack of organized planning, preventing us from making the most of our meager resources and increasing them suitably, and lack of facilities for transportation and communication between the different parts of this vast subcontinent make the problem of providing suitable nutrition and maintaining the health of the poverty-stricken people more difficult and intricate. Poverty and ignorance constitute the basis of subnutrition and malnutrition in India.

DIETARY REQUIREMENTS

Let us pause for a moment to consider the present supply of foodstuffs for the people in this country. The population of British India (excluding Indian India) is about 290,000,000. About 10,000,000 are infants who should feed on mother's milk. This milk is admittedly poor because, owing to ignorance and lack of resources, no prenatal dietary measures are adopted for the pregnant mothers, and the newborn has to be satisfied with a milk poor in quality and quantity.

Let us, in the next place, calculate roughly the annual dietary requirements of the remaining 280,000,000 people, assuming that each of them gets food of necessary nutritive value, derived from the consumption of a sufficient amount of proteins, fats, and carbohydrates, and the requisite quantities of mineral salts and vitamins. We should then inquire to what extent India produces them, and the way in which the deficiencies, if any, should be met. The latest census figures show that there are about 40,000,000 children between the ages of 1 and 5, approximately 35,000,000 children between 5 and 10 years of age, and 205,000,000 adults between 10 and 70 years, and over. If we provide 16 ounces of milk a day for each child between 1 and 5, and to all persons we provide the necessary quantities of rice, dal, leafy vegetables, nonleafy vegetables, and ghee (butter) or oil, so as to give to the children between 1 and 5 years 1,800–2,000 calories a day, to the group 5 to 10 years of age 2,250 calories, and to the group from 10 to 70 years, and over, 3,500 calories, and the due proportion of calcium, iron, phosphorus, and of vitamins, we should require for the 280,000,000 people an annual provision of: 10,000,000 tons of milk; 27,000,000 tons of rice; 13,500,000 tons of wheat flour (assuming 33 per cent of the population use flour instead of rice); 2,000,030 tons of lentils or gram; and 15,000,000 tons of leafy and nonleafy vegetables, such as cabbage, spinach, amaranth, potatoes, and brinjals.

In addition, McCollum insists on the inclusion in the dietary of sufficient quantities of "protective foods," by which he means milk, fruits, and eggs. In the above calculation, I have omitted fruits because they are too expensive for most people, and to a large proportion of people in India eggs are not permissible. Nor

have I included meat, because even most of those who are permitted to take it find it too expensive. The only source of animal protein I have considered is milk, provided only for children below the age of 10.

MILK PRODUCTION

It would be impossible in this short discourse to dilate further on each one of the above items of food, but we deal with the problem of milk supply, particularly because it is the most perfect single food available to mankind. It is the richest and the most easily available and utilizable source of animal protein, mineral salts, and vitamins. The total quantity of milk produced in this country is about 20,000,000 tons, and if all this were available as fluid milk not only would the children get more but the adults also would have a share. But unfortunately, owing to difficulties of speedy assembling, of long-distance transport, and of large-scale processing of fluid milk, its consumption is confined to the areas where it is produced.

It is estimated that only 27 per cent of the fluid milk produced is so consumed; that is to say, only 5,000,000 tons of milk are available for consumption, whereas our minimum requirements for children only amount to double the quantity. And yet, feeding experiments conducted on school children have shown that by giving more milk, better growth and maintenance of health are secured. Therefore, the production of milk is to be increased through proper feeding and management of the existing cattle.

On the other hand, a campaign for which state aid is essential, as in England and Wales, should be organized to "Drink More Milk." Then again, reorganization in the arrangements for assembling, processing, and marketing of milk is essential, particularly as a vast majority of people in India are vegetarians, depending on milk as the only source of animal protein. Similar planning and organization are necessary to meet the deficit in the supply of rice and wheat. A "Grow more Food" campaign, including provision for better irrigation, plentiful manuring, and better seeds would quickly produce satisfactory results.

For better nutrition and improved health of the people of India, it is necessary therefore that the problem should be regarded as one of primary national importance. It lies with the Government, supported by enlightened public opinion, to take the lead in the matter. The Committee of the League of Nations in its report stated :

There is no country in the world today in which conditions of nutrition and health could not be improved with Government help and direction ; there is no country in which further measures to awaken or stimulate public opinion are not imperatively required.

If the Government of India plays its part in leading the movement, private voluntary agencies will follow with their distinctive contributions. India, with its immense potentialities, will smile again and speedily line up with the other progressive countries of the world.

Bidhen Chandra Ray, M.D., M.R.C.P. (London), F.R.C.S. (England), F.S.M.F. (Bengal), has been professor of medicine at Calcutta University since 1916 and a member of the medical faculty of the University since 1916. He was twice elected President of the All-India Medical Association and has been president of the All-India Medical Council since 1939. At present he is Vice-Chancellor of Calcutta University.

Problem of Rural Life

By D. R. GADGIL

INDIA is a vast country with a large population and diverse geographic and climatic conditions. In writing of Indian rural problem it therefore becomes necessary to take account of extremely varying types of agricultural regions. This diversity may be indicated by describing the salient features of some of the most important regions.

RAINFALL AND IRRIGATION

Beginning with the northwest, we have the area of Western Punjab and Sind, which is an arid tract with an average annual rainfall of less than 10 inches, and in which agriculture is dependent entirely on artificial irrigation. The irrigation system of Sind dates from very ancient times, but has been extended considerably in the modern period. West Punjab irrigation is entirely a product of the last fifty years. It has been only in these parts that considerable new areas have been brought under cultivation in modern times.

In contrast with the new settlements of West Punjab, Eastern Punjab and the Gangetic Plains of the United Provinces are very ancient agricultural lands. They are endowed with a rich soil and a comparatively plentiful and dependable rainfall which can be supplemented by the help of both canal and well irrigation. These characteristics, with the exception of canal irrigation, are shared by the neighboring province of Bihar. The deltaic lands of the Ganges and the Brahmaputra, which are indicated broadly by the term East Bengal, are regions of rich soil and heavy rainfall. These constitute, therefore, a typical rice region, with the added advantage of having almost a monopoly of the valuable agricultural product, jute.

Farther to the east, Assam has rich rice valleys and the hilly tea region. Along the east coast the deltaic regions of Orissa and the Andhra and the Tamil country have a rice economy whose extent and security are guaranteed by considerable irrigation works at the mouths of the large rivers flowing through them. Along the west coast the heavy rainfall tract is narrower. At the extreme south of this coast is the rich garden land of Travancore and Malabar. Northward, though the rainfall remains heavy and secure, the land strip becomes poorer in quality until very poor soils are reached in North Konkan.

The Deccan Plateau and the Central India Plateau comprise soil regions of greatly varying fertility, but they are characterized over the whole area by a comparative absence of irrigation facilities and large dependence on the annual rainfall. Further, this annual precipitation has varying degrees of precariousness over the larger part of this tract. It is within this area that famines have been most frequent and most severe. The lands of Gujarat, with a moderate rainfall and with little irrigation, are yet among the richest in the country, while the contiguous region of Rajputana is, for the most part, a desert.

The diversity of conditions may be further explained by reference to a variety of features, the main among which are the extent and dependability of the annual rainfall, and the extent of double cropping. Connected vitally with all these phenomena are the density and movement of the population in the different regions. The average regional rainfall varies from 10 inches in Sind to over 100 inches in East Bengal and

Travancore. Contrasted in its dependability is indicated by the fact that in the Indian Peninsula itself the coastal strips almost never experience a failure, while over large parts of the Bombay and Madras Deccan the rainfall is proverbially deficient once every three years.

CROPPING FACILITIES

Some regions are dominated by only one grain, crop, as the rice regions of East and West Bengal, the wheat regions of Eastern Punjab and Western Indo-Gangetic Plain of the United Provinces or some poor parts of the Deccan where little except millet can be grown. In others the dominant crop might be a single cash crop, though this can never take up as great a proportion of the area under cultivation as the single foodgrain crop. The cotton area of South Gujarat or Khandesh and the jute area of East Bengal exemplify this type. Or again, there may be considerably diversified agriculture especially where there are irrigation facilities such as in the eastern coastal strip. And though animal husbandry takes an inferior place in Indian agriculture as a whole, there are tracts like North Gujarat where mixed farming (agriculture and dairy) is dominant type. Double cropping depends essentially on the nature of the soil and the facilities for irrigating it. In the poorer tracts the fields fail to yield even a single crop for each successive year. On the other hand, in East Bengal as many as three crops may be taken out. The Malabar coast regions exceed even this limit, by harvesting four crops annually.

POPULATION DENSITY AND MOVEMENT

The density and movement of population are correlated to some extent to all these factors. There are regions like Cochin and Travancore which, even with a density of 1,535 per square mile,¹ have been continuously growing² and do not send out many migrants. Other regions, like North and South Bihar and the Central and Eastern India-Gangetic Plains of the United Provinces, with high densities, ranging roughly between 950 and 1,080 per square mile, have been stagnant but show evident signs of overcrowding. They are the main centers from which emigrants go out in large numbers. Density by itself is, however, no criterion. The Bombay Deccan, with 297 persons per square mile, seems to be evidently pressed; but Gujarat, with 475 per square mile, does not show signs of strain. The population in the former, however, increased more than twice as much (30 per cent) as that of the latter (12 per cent) from 1881 to 1931. The Brahmaputra Valley, with 1,255 persons per square mile, and Northwest Dry Area, Punjab, with 540 per square mile, attract a considerable number of immigrants, and a major part of the large growth of population³ in these tracts is attributable to a favorable balance of migration. With these again may be contrasted East Coast Madras, South, with 1,060 per square mile, with an emigration history of two centuries.

SMALL, FRAGMENTED HOLDINGS

While physical conditions differ so greatly, it is yet possible to talk in some measure about problems of Indian agricultural economy in general because of the similar scale on which the agricultural industry is practiced in all regions in India.

1 All density figures in this paragraph are given per square mile of cultivated area, 1931.

2 Net reproduction rate of Travancore, 1901-31, 1.8.

3 1881-1931, more than 100 per cent.

Barring the plantations and the entirely negligible instances of large estate management, India is par excellence a country of small peasants. Whatever the climatic and cropping conditions and whatever the tenure of the system of land rights, the scale of the individual agricultural enterprise is everywhere very small. Universally, therefore the problems of Indian agriculture are those of the small peasant and must be visualized from his point of view and solved in the light of his needs and circumstances.

The small scale on which agriculture is conducted in India imposes a limitation on the resources and the technique of the enterpriser. It also results in the farming enterprise being mostly of the family enterprise type. Except in certain areas, where there remain vestiges of serflike systems, problems of agricultural labor do not loom large in this country. The vital problems connected with organization of agriculture are the smallness of the farm unit and the scattered character of its constituent parts. Over the greater part of the country even the small holding of the peasant consists not in a single continuous field but in numerous scattered strips.

This scattering of strips does not originate in communal agriculture, as in Russia or medieval Europe. India has never known anything similar to the open-field cultivation of Europe or the periodic redistribution of lands as in Russia. Farms in this country have been cultivated since very ancient times as individual independent enterprises. The scattering of the strips is chiefly the result of the division through generations of the original large contiguous areas. Its present extent has been measured in some parts of the country, and it has been shown that whether the holding be large or small, it is divided on an average into five to eight strips.

The fragmentation of the holding is obviously wasteful of the cultivator's resources and time, and efforts have been made in some provinces towards consolidation. The efforts have so far been voluntary, though initiated and helped in certain cases by Government. The largest measure of success has been obtained in areas like the Punjab, where, in the plains, location does not materially influence returns to agriculture, and where the quality of land is fairly uniform. Where, however, there are considerable differences in quality in the fields of a village, and especially where irrigation is available for certain areas and not for others, the consolidation of the holding in single block, presents very great difficulties. Some measure of fragmentation introduces in such a case a necessary element of diversification in farming, and also makes for a spreading of risks where there is considerable dependence on rain. So far, efforts towards consolidation have not been intense and have been confined to a few provinces. This may be due to the fact that though the wastage of land and resources due to fragmentation is not negligible, the most considerable wastage, that of time, is not greatly felt by the cultivator, owing to the limited area at his command.

The smallness of the total holding presents a problem which is more fundamental and more intractable. It is wrong in this connection to blame the laws of inheritance. Primogeniture and similar institutions are after all rare in the world, and a more or less equal division among heirs is a very common rule. Not in all countries, however, is there to be observed a progressive subdivision of agricultural

land. Further, the law of inheritance indicates merely a division of right of ownership, and has no necessary connection with the cultivating unit. As a fact, a large and jointly held cultivating unit has been traditional in India. Its breakup in recent decades is obviously the result of a pressure of population and a lack of alternative employment. Of recent years the concept of the "economic holding" has been much discussed in this connection, and there has been some talk of ensuring it by legislation. Any such effort, however, immediately raises the problem of the displaced population, and it cannot be undertaken except as part of a comprehensive planning of all employment.

PROPERTY RIGHTS AND TENANCY STATUS

The problem of consolidation, or of the economic holding, becomes even more complicated in areas where the actual cultivators are in the main tenants. In respect of land tenure systems, India may broadly be divided into two groups of regions: the first, in which the land is owned by the noncultivating landlord, and the second, in which the land is held directly by the peasant.

In the earlier phase of the conquest of India, British policy favored the maintenance of a landlord class in the country; and in the present provinces of Bengal, Bihar, and the United Provinces, the landlord system was therefore securely established. At the time of later acquisitions—Madras and Bombay—a school of thought favoring the creation of an independent peasantry had grown up among British administrators. In these provinces, therefore, the revenue system dispensed with any intermediaries and dealt directly with the cultivator. In the territories acquired still later, such as Punjab, Central Provinces, and others, some variants of the two systems were adopted.

It should, of course, be remembered that the nature of the revenue system was not determined entirely by the opinions or prejudices of the new rulers, but was also largely molded by the historical antecedents of the various regions. The landlord provinces comprised mostly ancient agricultural regions subject to waves of invading settlers from time immemorial. The system of rights of property in land was, therefore, complicated in these regions. The British in the early days took account only of the superior holder, and had even no means, at the time, for recording the extent and the nature of the other rights. A vague guarantee was no doubt given that all these rights would be respected, but no method was devised by which the guarantee could be implemented. It thus happened that, through the chaos of the early settlements and the lack of protection in later times, rights of inferior holders and cultivating tenants were but precariously maintained.

It was not till the middle of the nineteenth century that the British undertook any tenancy legislation. The first piece of such legislation was enacted in Bengal, and similar provisions were made later for the other landlord provinces. The chief aim of all this legislation was to maintain the customary rights of inferior holders and cultivators, and the method adopted was that of guaranteeing certain rights to persons who could be proved or were supposed to have held land or such rights for a certain period of time. The chief difficulties met with in this legislation, apart from the difficulties of countering evasive practices, were that at least initially it covered a very small class and that it did not necessarily protect the actual cultivator.

The latter difficulty arose because the cultivating tenants were not necessarily and in all regions holders of customary rights ; but even where they held such rights, the new rights being alienable property rights attached to persons and not to the cultivating status, they could be contracted away. Because of the chronic poverty and indebtedness of the peasant, they were so contracted away over large areas. The creation of a graded system of rights thus resulted in adding to the stages of infeudation without benefiting in any material degree the actual tiller of the soil. In the Central Provinces the Gordian knot was cut by the adoption of a single type of uniform tenancy right, instead of a gradation of such rights, by making this right inalienable and by strictly regulating subleases. The solution was, however, not accepted elsewhere.

In the main landlord provinces it was only after 1920 that attention began to be paid to the problems of the bulk of the peasantry, i.e., the undertenant. The measures devised then and in the next decade complicated the legal structure further in most cases, and did not always afford adequate protection for all the tenants. So long as the right in land is divorced from the cultivating status, every person to whom the right accrues may, according to circumstances, cease cultivating land and become a rent receiver, or sell away the right and be reduced to the status of an unprotected tenant. The law must therefore aim directly at guaranteeing justice and security to the cultivating tenant as such, and for this purpose the most satisfactory system evolved in India so far has been the Central Provinces system.

In the nonlandlord provinces, tenancy problems should ordinarily not exist. In these provinces, however, a number of independent cultivators have been reduced to the status of tenants, mainly through the transference of land to moneylenders. The proportion of such tenants varies from region to region, but is substantial almost everywhere. Tenancy legislation for these areas is yet largely in the discussion stage. The only attempt made so far has been the Bombay Act of 1939. Even this act unfortunately followed the entirely inappropriate model of the legislation of landlord provinces, and is thus likely to prove of very limited use.

RURAL FINANCE

The problem of agricultural indebtedness attracted attention earlier, for obvious reasons, in the nonlandlord provinces. In the landlord provinces the landlord financed the cultivator in a number of instances. The creditor-debtor relation, in the circumstances, was naturally not visualized as sharply separated from the landlord-tenant relation. Further, the actual cultivator in the landlord provinces did not ordinarily possess a valuable property right in land which he could alienate or offer as a security for his borrowings. It was thus in the provinces where the cultivator possessed such rights that problems connected with the indebtedness of the agriculturist first received attention. They took the most acute form in two regions—pre-canal-irrigation Punjab and the Bombay Deccan—in both of which agriculture had a precarious basis and in which an erstwhile independent peasantry had come to be exploited, under British rule, by a body of alien financiers.

The early legislative experiments made in these two areas for the regulation of rural moneylending were, however, not followed up elsewhere for a very long time. It was not till the acute depression of the last decade that the problem was again squarely faced. At that time, however, the concepts and the methods evolved in other countries

to deal with the depression ruled the minds of legislators to such an extent that the long term problem of Indian rural credit was not seen in its proper perspective. This long-term problem is the problem of affording the minimum essential credit on the best possible terms to agriculturists with very limited repaying capacity, and of adjusting the burden of their old debts in such a manner that it does not permanently hamper their future operations. This involves the double process of an initial adjustment and later recurrent finance. The former is of little use without the latter. The main difficulty in the latter consists in finding a machinery which will not only afford credit at reasonable rates but also, at the same time, limit and regulate it in a positive manner.

With this problem, which is essentially one of the current finance of agriculture, is inevitably connected the question of marketing. The roles of the moneylender and the marketing intermediary are again often inseparable. A financial organization, therefore, also connotes a marketing organization; and in respect of marketing, the agriculturist in India is even more helpless than with regard to finance. While co-operative credit has made substantial progress at least in certain regions of the country, co-operative marketing markedly lags behind everywhere. Orderly marketing is, then, impossible except for the few regulated markets where marketing practice is defined and weights and measures guaranteed. Such regulated markets are found only in some provinces for one or two staple products. The cultivator thus sells his products not only at perhaps the least favorable time, but also either in an unregulated market or locally to a person who is also often his financier.

FACTS TO BE FACED

We thus return to the small scale of the operations of the individual cultivator and the small size of his resources as the central feature and problem of Indian rural economy. All programs of relief or reconstruction must reckon with this basic fact. In countries somewhat similarly situated, like Russia, two modes of escape from this compelling fact are available. One is the rapid industrialization of the country, which draws away a large mass of the rural population, and the second is the fuller exploitation of the agricultural resources of areas hitherto only partially developed. But neither of these ways out is available in India. The possibilities of the absorption of large numbers of laborers by future industrial expansion are distinctly limited. Internal migration on any large scale has been possible only to the comparatively undeveloped province of Assam and the new Canal Colonies in the Punjab and Sind. The relief afforded by these in the future cannot be expected to be large, and channels of external migration must be taken to be closed, at least for the time being. Under the existing social conditions, therefore, we must plan to increase the income of the peasant, taking for granted the small scale of his operations.

This central problem of Indian agriculture is also sometimes described as the problem of "deficit economy." It is difficult to define the term "deficit economy." What it seeks to convey, however, is that the Indian agricultural enterprise does not yield any positive income to the agriculturist if the normal charges (normal as in Indian conditions) on the enterprise by way of interest on capital invested and remuneration of the unpaid labor of the family are calculated. And this is said to be the case not only under special circumstances of, say, a depression when it was universal, but to be chronic in India.

Careful factual studies of the profitability of farming in India are rare. The elaborate inquiry into the cost of production of sugar cane and cotton carried out by the Imperial Council of Agricultural Research revealed the existence of such a deficit economy, but these data referred to the years 1933-34 to 1935-36, and thus included years of depressed prices. Other inquiries usually refer to small and not necessarily representative samples. Also, no figures referring to single regions can be held valid for India as a whole. It may, however, be pointed out, by way of illustration, that a survey covering nearly six hundred farming units in one of the more favorably situated parts of the Bombay Deccan revealed an average deficit, on the above basis, of Rs. 99. It also revealed that the total income of the average family, not allowing for interest or unpaid family labor, was Rs. 88. The information relates to the year 1937-38, when the depression had certainly passed away.

This is not the place to enter into the controversy about the legitimacy or the significance of terms like a "chronic deficit economy." What is relevant is that even if the Indian farm is considered not as a commercial enterprise but only as a unit in a system of subsistence economy, the subsistence that it offers to the agriculturist and his family is meager in the extreme.

AVENUES OF IMPROVEMENT

The main directions in which efforts for the economic rehabilitation of the peasant could be made are the improvement of the peasant's technique and of his organization. The standard of technique of the Indian peasant is variable from region to region and from community to community. It has, however, been generally admitted that where it is developed, it reaches a very high standard and is remarkably well adapted to his circumstances. Again, the Indian peasant has time and again proved his readiness to adopt improvements and innovations when they are demonstrably to his benefit. Illustrations of this can be found in the rapid spread of the groundnut crop in peninsular India, the quick adoption of the iron plow in certain tracts, and the adoption of improved varieties of crops such as cotton, wheat, and others, all over India. It is still true that the standard of cultivation could be appreciably raised in certain areas or communities, and that almost everywhere the use of scientific advances could contribute towards bringing about a series of minor improvements.

The difficulties in the way of bringing this about are twofold. First, applied research must be so directed that it tackles the specific problems of Indian agriculture as they present themselves to the small cultivator. Second, the results of research must be brought to the door of the cultivator and presented to him in a convincing manner. Research projects so far have not been deliberately planned to this end, and in propagating the concrete results of research, Indian official organizations has been notoriously weak.

Even more might be expected from the improvement in the organization of agriculture than from technical advance, especially if the improved organization of common resources, as that of water, forest, grazing land, and so forth, is taken into account. Everywhere the Indian cultivator is faced with problems of soil conservation, moisture conservation, drainage regulation, or increase of irrigation facilities, the better use of grasslands, the linking up of forest resources with the fodder and fuel

requirements of the region, and others. In all these, as well as in the individual operations of credit and marketing, the lone, unaided cultivator is helpless.

These questions of the proper conservation and utilization of resources have both an organizational and a technical side. The importance of water supply, natural and artificial, far outweighs all other factors in Indian agriculture. And in this connection also, while the larger projects have received all attention, the small-scale local problems, which are no less important, have been mostly neglected. The general consideration in regard to Indian soils, apart from the problem of erosion, is one of their exhaustion. The soils of India have been cultivated from time immemorial, and little has been done to conserve the original qualities of the land. The exhaustion of soils has in many areas reached a stage where further deterioration borders on the impossible. This prominently emphasizes the need for a proper utilization of manure resources for a sound agricultural economy. Attention may be drawn in this regard to the efficient system of using all waste materials, as manure, developed and practices for centuries by the Chinese.

Closely allied with this is the problem of cattle resources. More and inefficient cattle is the vicious circle that envelops the Indian farmer. In view of the increase in the area under cash crops and the very limited scope for the further extension of cattle, pasture land in India, the supply of fodder appears highly inelastic. Fewer and efficient therefore, seems to be the obvious goal. This applies as well to draft as to milch cattle.

THE POLITICAL ASPECT

The present state of affairs is the inevitable consequence of foreign rule. A highly centralized bureaucracy has been the necessary instrument of the maintenance of British rule in India. This bureaucracy has been responsible both for shaping policies and for administering them. The aims of British policy could not, therefore, take into account the internal social needs of the various regions. The British had also not the means to carry out a detailed program of local rehabilitation or reconstruction. Their best work lay, therefore, in such directions as the construction of large canal systems or the devising of a famine relief policy. The main need of Indian rural economy today is to increase as far as possible the resources of the small peasant by organizing local and regional communal effort and by introducing improvements suited to local needs. It is only a democratic form of government and a democratically conceived administrative machinery that can adequately supply this need. It is hoped that the time may not be far distant when the Indian peasant, in possession of a modicum of political power, may use it to some purpose in forcing a realization of this on the powers that be.

Professor D. R. Gadgil, M. A. M. Litt. (Cantab), is the Director of the Gokhale Institute of Politics and Economics, Poona, where he has been doing valuable research in economics. He was a member of the Textile Labour Enquiry Committee appointed by the Government of Bombay in 1937. He is connected with the Educational activities of the Province and is a member of the Council of the Deccan College Postgraduate Research Institute. He is author of The Industrial Revolution of India, The Bombay Land Revenue System, Imperial Preference for India, and other works.

Measures for Improvement of Agriculture

By T. VIJAYARAGHAVACHARYA

THE facts that the main source of revenue for the provincial governments was the tax on land, that the state claimed to be the landlord in many parts of British India, and that when there was an extensive failure of crops and famines broke out, sheer necessity obliged the governments to grant large remissions of land tax and spend vast sums of money on relief measures, as long ago as 1866 drew the attention of the Government of India to the need for the creation of a State Department of Agriculture. But those were the days when the doctrine of laissez faire ruled the counsels of Government, and no effective action was taken until the great famine of 1877 led to the appointment of a commission in 1880 which recommended the formation of a Central Secretariat of Agriculture with agencies in the provinces, but their function was to collect statistics and facts, and not to conduct scientific inquiries and research.

A Central Secretariat was established, but what was really more important, the proposal to create provincial departments, was not put into effect. Independently of the Central Government, however, some of the provincial governments started measures for agricultural improvement under official agencies. Colleges for imparting agricultural education, model farms, and cattle breeding stations were established, and an attempt, well meant but not often appropriate to local conditions, was made to introduce exotic crops and to import agricultural implements and breeding bulls from England. But there was no continuity or system, the effort depended on the personality of individual officers, there was a lack of expert scientific advice, and even where improvements of value had been discovered, there was no organization to popularize them.

NOTABLE STEPS

The first serious attempt to introduce scientific research in agriculture was made in 1889, when the Secretary of State deputed Dr. Voelcker, consulting chemist to the Royal Society of Agriculture in England, to go to India and advise on the application of chemistry to Indian agriculture, and on improvements in it. His report, made in 1891, after a year's study, constitutes a landmark in the history of the development of the state's policy towards agriculture. His opinion was that Indian agriculture was far from being primitive and backward. He asserted that in many parts of India there was little or nothing that could be improved ; that while agriculture was manifestly inferior, that condition was more generally the result of the absence of facilities which exist in the better districts than of inherently bad systems of cultivation. That improvement was, however, possible, was clear from the differences of the agricultural conditions and practices found in different parts of India. He recommended, therefore, the systematic prosecution of agricultural inquiry and the spread of general and agricultural education, and laid down the general lines on which improvement was possible. Dr. Voelcker's report went into detail and made several practical suggestions which even today are of value.

The second landmark of the new agricultural era was the foundation in 1904, by Lord Curzon, of a Central Research Institute at Pusa, and, as an integral part of the same policy, the inauguration of systematic research, experiment, demonstration, and

education in the provinces, financed by annual grants from the centre. Pusa was to do research work for the whole of India on fundamental problems, while problems of provincial importance were to be investigated in the provinces. It is on the lines laid down in 1904 and 1905 that the provincial departments have since developed. The development would have been more rapid if the Secretary of State had not, acting on the old prejudice against state promotion of industry, cut down the Viceroy's proposals.

The next landmark in agricultural development is associated with the constitutional reforms of 1920, when partial provincial autonomy was introduced and the administration of agriculture was transferred to popular ministers responsible to provincial legislatures. The effect of this change was manifested in an increased popular interest in this usually dry subject and in increased grants for its development, though the extent of the benefit was often restricted by Finance Member whose training was more in the field of law and order than in that of economic development.

ROYAL COMMISSION OF AGRICULTURE, 1926

The working of the reforms of 1920 brought into prominence a defect noticeable even before 1920, namely, the absence of a central machinery having both power and ability to guide, stimulate, and co-ordinate research in the provinces. It is outstanding merit of the Royal Commission of Agriculture, presided over by Lord Linlithgow (who has since become Viceroy), that it emphasized the supreme necessity for continuous scientific research and elaborated an all-India machinery for its co-ordination. "An organization for agricultural progress," the Commission said, "not based on research is merely a house built on sand." Not that this is the only merit of the Commission's report. The Commission went with care and industry into every aspect of agriculture and made detailed suggestions as to the lines of work on which future research should be conducted, and also as to other measures for agricultural improvement. Its report will for several years to come be the Bible of the Agricultural Minister and the Agricultural Officer.

IMPERIAL COUNCIL OF AGRICULTURAL RESEARCH

The machinery devised by the Commission was the Imperial Council of Agricultural Research, formed in 1929. It is composed of two bodies. One is the Advisory Board, consisting of experts representing the provinces, the constituent states, the universities, and scientific bodies. These experts deal with the scientific and technical aspects of schemes. After scrutiny, the schemes are submitted to the second body, the Governing Body. This is composed of the Ministers of Agriculture from the provinces and the states, and elected representatives of the Central Legislature and of commercial federations. This body decides whether grants should be made for the schemes that have been approved by the Advisory Board, and is responsible for the general policy and the financial administration.

In the thirteen years of its existence the Council has stimulated research in the provinces and the Centre, both of which it treats with equal impartiality, though its funds are derived from the latter. It has also put new life into the research workers, brought university workers into its fold and given opportunities to Indian young men to follow up their academic studies with active prosecution of research—opportunities which they have amply justified. By its constitution and the wisdom of its guiding

heads it has disarmed provincial jealousies and gained the support of the Central Legislature and of the leading Indian states which have become its members.

Three things in the recent history of the Council deserve to be mentioned. The first is the fact that by law it has been given the proceeds of a cess specially levied on exports of about twentyone agricultural commodities. This gives it a secure income, unaffected by the vagaries of Finance Members and their assistants, whose previous training made them look on all scientific research as a luxury of doubtful value, to be abolished or "put in cold storage" the moment there was financial bad weather. The second is the reduction of the Secretariat of the Council from an independent department of the Government to a dependent on another department. This has diminished its power of effective advocacy. The third is a tendency to multiply subcommittees, with the result that the scope of the discussions in the Governing Body has been abridged, and often its decision is merely a mechanical endorsement of the sub-committee's recommendations.

DEVELOPMENT OF IRRIGATION

If the development of research is the marked feature of the measures adopted in the recent past to improve agriculture, the development of irrigation has been the outstanding achievement of the British Government from the time its power was consolidated in India by the annexation of the Punjab and the entire territory comprised within the present United Provinces. To the credit of the previous rulers stand only the Grand Anicut across the Coleroon River in Tanjore built by the old Hindu Chola Kings, the inundation canals of the Indus, and its tributaries made by the two Jumna canals constructed by the Mogul emperors of Delhi. The present Government can take just pride in the fact that 33 million acres have been brought under irrigation by it.

What this means in a country like India can be told in a paragraph. The vital fact in Indian agriculture is the rainfall. There are two zones of heavy rainfall—one along the Western Ghats and the Arabian Sea, and the other extending along the outer ranges of the Himalayas, widening out south of Sikkim to include Bengal and Assam—which are naturally more or less secure against famine. Outside of these two zones, any serious deficiency in rainfall is sure to cause a severe scarcity which tells on men and cattle in the first year, and if repeated in the same tract in a second year, a famine. Unfortunately, the rainfall is likely to be unequally distributed throughout the seasons and is still more likely to be irregularly distributed over the surface of the country. Irrigation works protect the tracts they serve from the consequences of Nature's failures, and add immensely to the wealth of farmers, both by securing better yields of the same crop and by enabling substitution of superior crops for inferior ones.

The question of the possibilities of extension of irrigation was gone into with care and thoroughness by the Irrigation Commission (1901-3) appointed by Lord Curzon, and its report, though produced nearly forty years ago, still remains the leading authority on the subject. Its calculations showed that over the area comprising the basins of the Indus and the Ganges and the rest of India which lies between their southern boundaries and Cape Comorin, and area covering 1,434,000 square miles, the average rainfall was 37.5 inches, giving a total volume of 125 billion cubic feet of water. Of this, a value of 51 billion cubic feet, or 41 per cent, results in surface flow;

and of this again, 6.75 billion cubic feet, or 13 per cent, is held back or diverted for purposes of irrigation. The balance of 44.25 billion cubic feet, or 87 per cent of the total surface flow, passes to waste in the sea.

Why then, it may be asked, should it not be possible to utilize the surplus of one tract to make up the deficiency of another; or where the physical conditions render this impossible, why should not the surplus of wet years be stored up in readiness for a year of drought in every tract in which the rainfall is liable to failure? The Commission's answer was:

We are far from considering that irrigation in India has reached its ultimate limit, we are unable to state what that limit may be; but we are convinced that there are many parts of India where the utmost use of every available means of irrigation will fail to afford complete protection against failure of the rainfall.

The Commission then proceeded to give its reasons at length against the possibility of utilizing any very large share of the enormous surplus volumes which are carried off annually by the rivers of India. Considerations of space forbid even the barest summary of the Commission's arguments, but I cannot resist quoting its illustrations from the Indus Valley, where only 9 per cent of the total rainfall or 30 per cent of the surface flow is retained for irrigation.

The snows and glaciers of the Himalayas provide storage on a scale that man cannot hope to rival; the level alluvial plains lend themselves to the construction of large canals; while the demand of the thirsty soil for water renders all such works remunerative in the highest degree. We have no doubt that in spite of the enormous areas already irrigated in this catchment, it will be possible to make very large extensions of irrigation. But if all the works which are now conceived to be possible in the Punjab Sind are constructed, though they may absorb an additional half million cubic feet, not a single tract that is specially liable to famine will be appreciably affected thereby and 60 per cent of the surface water will still run waste into the sea. No human skill or ingenuity will carry any portion of this volume of 3.5 billion cubic feet to the high-lying plains of Jaipur and Marwar, or over the ridge of the Indus Valley to famine-stricken tracts in other parts of India.

In the face of this conclusion, while large extensions of irrigation are still possible, it must be taken that there are several areas of precarious rainfall which cannot be saved by irrigation. The alternative remedy is dry farming.

DRY FARMING

The methods of dry farming have been adopted from the methods in use in the dry farming areas of the United States. They were first used by an enthusiastic Director of Agriculture at Mangri near Poona in the precarious area of the Deccan, in 1925. The experience of that year and the following one showed that the adoption of the new plan saved the crop in 1925 and gave a high yield in 1926, while the ordinary cultivator got nothing in 1925 and just a normal crop in 1926. The Imperial Council of Agricultural Research sanctioned similar schemes at five stations in the precarious areas of India, namely; Hagari (Madras Deccan), Sholapur and Bijapur (Bombay Deccan), Raichur (Hyderabad Deccan), and Rohtak (Punjab). Work is in progress in all these stations.

The methods adopted in the Bombay Deccan, where they have been practiced longer than elsewhere, are : (1) plowing the land with a turnwrest plow at least once in three years in medium and deep soils; (2) bunding or terracing the land and division

into compartments to control the movement of rain water; (3) application of farmyard manure at five cartloads per acre, or a green manure like Sann-hemp, every year; (4) four or five harrowings during the monsoon before sowing; (5) sowing at a moderate seed rate at 4 to 5 pounds per acre, with a wider drill so as to keep a space of 18 inches between rows; (6) stirring off the surface soil by bullock hoes worked between the rows.

These methods, it will be observed, serve a dual purpose. They conserve moisture and prevent erosion.

SOIL EROSION

The seriousness of the problem of loss of soil by erosion has not been adequately realized till recently. Erosion may be caused in two ways; by floods in the rivers and by the washing away of soil from sloping land by the ordinary rainfall. The former is intensified by the reckless felling of forests which has gone on in many parts of India. Spectacular evidence of fluvial action is afforded in the United Provinces by the conversion of valuable land in several villages on the Jumna into a series of ravines where now only grass will grow. The operation of the second cause may be seen even by the casual traveller who passes through the Deccan in a rain—the universal scouring of the fields and the wholesale loss of what is the ryot's most valuable asset. The loss on a single acre of even moderately sloping land is from 50 to 150 tons per annum. The remedies are: (1) afforestation, as of the Jumna ravine lands; (2) reafforestation; (3) terracing and drainage of sloping land, as in the tea estates of Assam; (4) bundling of fields as in the Bijapur District.

SPECIAL CROP COMMITTEES

Next to the United States, India produces the largest quantity of cotton in the world. In 1921 a central body known as the Indian Central Cotton Committee, charged with the promotion of all measures to further the improvement of cotton-growing in India, was constituted with headquarters in Bombay. It received statutory recognition two years later and assigned the proceeds of a cess specially levied on all cotton used in mills and exported from India. On this Committee are representatives of the growers, the ginners, the spinners, the manufactures, the merchants, and the officials of provinces and states interested in cotton.

The Committee has promoted every aspect of research work—breeding of new varieties which form the most promising field of agricultural advance in India, substitution whenever possible of long-staple cotton for short-staple cotton indigenous to the country, mycology and entomology, manurial improvements, and crop and soil management. It has taken active steps to prevent mixture of superior strains of cotton with inferior ones, and to prevent malpractices in gins and factories, in transit and in shipping. It has established a Technological Laboratory admittedly the finest in Asia. It has interpreted its functions literally and advanced large sums of money for establishment of pure seed and for its multiplication on farms and its extension in appropriate areas—one of the best ways in which assistance can be given to the farmer. It has explored the avenues for using short-staple cotton other than the customary use. It was the first body in India to study the marketing of the crop and improve its methods, and to investigate foreign markets for Indian cotton. Its work has been so successful that bodies modeled on it have been formed for lac, jute, and coffee, with statutory powers to raise funds by cesses.

AGRICULTURAL MARKETING

Improvement in the marketing of agricultural products in general was started in 1934 under the auspices of the Imperial Council, by the appointment of a Central Marketing Officer with a large staff both at the center and in the provinces. Marketing surveys were the basis on which action was taken. Thirty-two commodities have so far been investigated, and a survey of existing marketing methods and organization has been completed. The knowledge thus gained has been applied in practice to grading and marketing of the commodities. For crops like wheat and oilseeds, which are normally dealt in at the wholesale markets, attention was primarily devoted to the standardization and improvement of the wholesale contracts and better definitions of quality, putting as far as possible, a definite premium on the sale of the high-quality produce. For commodities which go more directly to the consumer, "national mark" schemes for graded produce were adopted. Experimental grading and packing stations have been set up with licensed packers in charge. The scheme is slowly gaining success.

AGRICULTURAL CO-OPERATION AND RURAL RECONSTRUCTION

The Linlithgow commission pointed out that the modern conception of the co-operative movement is really that of rural reconstruction, and that co-operative principles can be used in overcoming most of the obstacles to progress in rural communities. Unfortunately, till recently co-operative societies, except in certain limited areas, dealt mostly with the credit side of their work. There is now an urge, fostered by the Agricultural Credit Department of the Reserve Bank of India, to establish "multipurpose" societies in villages, which will enlarge their activities to include the supply of manure, pure seed, and improved implements, joint purchase of agricultural produce and joint sale. Marketing societies are being established, with a Central Marketing Society at provincial headquarters. In fact, the present-day ideal is the triple program of "better farming, better business, and better living." Subsidiary industries such as hand spinning, beekeeping, fruit growing, cattle breeding, dairying, and poultry keeping are to be organized to improve the income and the purchasing power of the rural population.

Societies for better living have proved successful in some areas. There is no reason why their functions should not be taken up by multipurpose societies and extended all over the country. The main obstacle has been the lack of men in the villages competent to advise and direct. In normal peacetime a large number of educated young men in the towns find no occupation of the kind hitherto considered the proper thing for them. Latterly the cry has been "Back to the village." There is a great scope for useful work for these young men in propaganda work in the villages. Before undertaking it, they should be put through short courses in agriculture, public health, and sanitation. What the villager wants may be summarized as follows : (1) improvement of his material condition, freeing him from debt ; (2) sanitary improvement of his surroundings and the provision of medical relief ; (3) education just sufficient to prevent him from being imposed upon by the sharp wits of the urban area and the underlings of the government departments ; and (4) the provision of amenities in the village so as to make living in the village tolerable ; already the motor bus and the cinema have brightened up his existence.

DAIRYING AND MILK SUPPLY

In no aspect of agriculture is India so backward as in animal husbandry. She has the largest cattle population of the world, but her animals are in efficiency probably among the poorest. There has been a progressive deterioration in their condition. In the last hundred years the human population has increased fast, land formerly available for grazing has been taken up for cultivation, and to meet the extra demand for work animals their numbers have been multiplied without an increase in their quality, with the result that cattle have less to eat and their size has decreased. India has several excellent breeds, some fit for draft, some for milking, and some for both. Formerly the attempt to improve Indian cattle was made by importing animals from England and crossbreeding. This has been a failure. It has now been replaced by selective breeding from the best Indian breeds. The imperial Council has started active work on these lines, and some improvement should be perceptible in the next thirty years.

The average milking capacity of the Indian cow is very poor indeed. It is 525 pounds for the whole year. That it is possible of considerable increase is proved by the fact that special herds of cows of the Sahiwal breed have produced as much as 6,660 to 7,744 pounds. It is all a question of selection, proper breeding, and management. Crossbreeding, with foreign animals is not recommended except as a quick method of increasing the supply of milk in a large modern dairy serving a large city. As a general policy, it is deprecated.

The Indian buffalo is superior to the Indian cow as a milk yielder, its annual performance being 1,270 pounds as against the 525 pounds of the cow. The buffalo is the Indian dairy animal par excellence, and the Murra, Delhi, and Kathiawar buffaloes have earned a deservedly high reputation. For butter and ghee, the buffalo is to be especially preferred. The butterfat in the milk of the Indian cow is 5 per cent; as against the English cow's 3.8 per cent. in the buffalo it is 8 per cent.

ADEQUACY OF PRESENT MEASURES

The question of the adequacy of the measures so far adopted is practically a question of the adequacy of the grants made by the Central and provincial governments. A look at the agenda of a single meeting of the Governing Body of the Imperial Council will show what a amazing variety of subjects is covered by it, what an enormous scope for improvement there is, and how pitiful are the funds allotted for it. I freely admit that today the figure is much higher than the paltry sum with which I started work in the Council in 1929. Even so, the funds allotted by provinces and Center for the agriculture, animal husbandry, and veterinary departments total to two crores of rupees a year, which amount to less than 15 pies ($1\frac{1}{4}$ pence) per head of the population. The field is unlimited, the workers are there, but the money is wanting.

Sir T. Vijayaraghavacharya has been very active in the public service of his country. Among other activities, he has served as a Member of the Public Service Commission and of the Indian Legislative Assembly; adviser to the Indian Sugar Industry on tariff questions; Dewan (Prime Minister) of two Indian states; vice-chairman of the Imperial Council of Agricultural Research; president of the Indian Central Cotton Committee; leader of the Indian Delegation to the International Agricultural Conference at Rome; chairman of an All-India Conference on Rural Reconstruction at Indore; and chairman of a Committee on Co-operation of Madras.

National Income of India

By V. K. R. V. RAO

AS THE term "national income" is used by the author, the national income of a country is the money value of the flow of commodities and services, excluding imports, becoming available for sale (or capable of being sold) within the period, the value being reckoned at current prices, minus the sum of the following items: (1) the money value of any diminution in stocks that may have taken place during the period; (2) the money value of the flow of goods and services used up in the course of production; (3) the money value of the flow of goods and services used to maintain intact existing capital equipment (value being reckoned at current prices in all these cases); (4) receipts of the state from indirect taxation; (5) favorable balance of trade including transactions in treasure; (6) net increase in the country's foreign indebtedness or the net decrease in the holdings of balances and securities abroad whether by individuals or the government of the country.

AVAILABILITY OF DATA

The writer of this paper knows that his estimate of India's income is not comparable in accuracy to those of either the United States or Great Britain, and he is keenly aware of the large element of guesswork that his calculations contain; nevertheless he has ventured to attempt an estimate, on the ground that with care and caution one can get something useful even from inadequate data and that in any event, only by making use of such data as exist can it be possible to induce the powers that be to furnish additional information.

Indian income tax statistics account for the income of no more than a million persons out of a total of 350 millions. There is no census of production in India, nor is there a wage census. Unemployment and health-insurance statistics of the type recently pressed into service by Mr. Colin Clark for his estimates of the British national income are conspicuous by their absence in India. On the positive side, we have official estimates of the production of principal agricultural commodities; and agriculture, it is well known, accounts for the income of more than 70 per cent of India's population. Comprehensive statistics are available of the production of minerals and forest products. Some data are also available on milk and milk products, incomes of government servants, and incomes of industrial workers in certain parts of the country. It should also be remembered that income tax statistics, while accounting for a numerically negligible part of the population, yet cover the major portion of the income of the population engaged in organized industry and commerce. The available data have been supplemented by the institution of a number of ad hoc inquiries on the part of the writer.

METHOD OF CALCULATION

Owing to the poverty of even the available data for the whole of India, the calculations are confined to British India. Taking the occupational census of 1931-32 as a basis, I first estimate the number of earners in the country, the total of whose incomes make up the national income. This number is then divided into two sections—those whose incomes I evaluate by the "inventory" method and those by the "income" method. The first section accounts for the income of 69 million workers, the occupations covered being agriculture, pasture, mines, forests, and fishing and hunting. The

TABLE 1—NUMBER OF INCOMES*

(Figures in thousands)

Occupation	Total re-turned as occupied	Estimated number of unem-ployables	Estimated number of wholly un-employed	Total number of actual earners
Exploitation of animals and vegetation ...	68,502	3,425	...	65,077
Mining ...	256	...	...	256
Industry ...	15,744	787	365	14,592
Transport ...	1,677	84	...	1,593
Trade ...	5,764	288	135	5,341
Public force and administration ...	1,147	...	...	1,147
Professions and liberal arts ...	1,516	76	...	1,440
Domestic service ...	1,959	98	...	1,861
Independent income ...	139	...	...	...
Unproductive... ...	916	...	...	...
Grand total ...	97,620	4,758	500	91,307

second section deals with the incomes of the remaining 28 million workers, the occupations covered being industry, trade, transport, public force and administration, professions and the liberal arts, and domestic service.

Workers in these nonagricultural occupations are in turn divided into two sections—those who pay income tax and those who do not. Incomes of the former are obtained from income tax statistics, while as regards the latter, I use figures of average earnings in each group, based on the results of ad hoc inquiries and a judicious use of published studies relating to the economic condition of these classes.

To these totals is added an estimate of income from house property and other miscellaneous items which cannot be specifically identified with any particular set of occupied persons. From these totals we deduct the money value of the goods and services consumed in the course of production, e.g., seeds, raw materials, and so forth, and that of the goods and services used to maintain intact existing equipment, e.g., repairs, depreciation, and so forth. By aggregating the net totals under the two heads and deducting any net increase in the country's indebtedness, we get the entire national income.

The year selected for study is 1931-32, mainly on the ground that our calculations of the number of incomes and their classification into various groups are based on the decennial census occupational figures. Detailed census figures for 1941-42 are not yet published; and even when published they will include no occupational figures, the occupational census having been discontinued as a measure of war economy. I have therefore to use the year 1931-32 for the account of Indian income that follows.

"INVENTORY" ESTIMATES

Tables 1 and 2 give the statistics of actual earners or number of incomes in the country, and an estimated classification of these into urban and rural earners.

* For details of the calculations behind these estimates and the others that follow, the reader is referred to the author's study of *The National Income of British India, 1931-32* with an introduction by Dr. A. L. Bowley, Toronto: Macmillan, 1940. This is the latest estimate of India's national income.

TABLE 2—URBAN-RURAL DISTRIBUTION OF EARNERS
(Figures in thousands)

Occupation	Total of actual earners	Estimate of urban earners		Estimate of rural earners	
		Number	Percentage	Number	Percentage
Exploitation of animals, vegetation and minerals	65,333	1,435	2.2	63,898	97.8
Industry	14,592	4,045	27.7	10,547	72.3
Transport	1,593	761	47.8	832	52.2
Trade	5,341	1,882	35.2	3,459	64.8
Public force and administration	1,147	607	52.9	540	47.1
Professions and liberal arts	1,440	565	39.2	875	60.8
Domestic service	1,861	757	40.7	1,104	59.3
Total	91,307	10,052	11.0	81,255	89.0

The estimate of "unemployables" in Table 1 allows for the old, the incapacitated, the ill, and the otherwise chronically unemployed. The percentage is larger for India than it is in Mr. Colin Clark's calculations for Britain, partly because our general health and nutrition conditions are much worse and partly because the Hindu joint family system makes it easier for the unemployables to live on the income of their relatives. "Wholly unemployed" refers only to the unemployed in organized industry and trade, and takes no note of the vast millions of chronically underemployed persons whose unemployment is, however, taken into account in calculating their average levels of earnings.

The volume and value of agricultural output during the year 1931-32 are given in Table 3. For purposes of comparison and particularly in view of the variability of agricultural output from year to year, I have also included in the table figures of the decennial average output of agricultural goods for the decade ending 1932-33. It must be added that the value of agricultural output shown in this table is below normal, because of the very low level of agricultural prices prevailing during that year.

TABLE 3—AGRICULTURAL OUTPUT
1931-32
(Figures in millions)

Commodity	Volume of output in tons		Value of output in rupees 1931-32
	Decennial average	1931-32	
<i>Food crops</i>			
Rice	30.13	32.66	3,062.8
Wheat	7.46	7.22	487.6
Jowar	4.68	4.50	266.4
Gram	3.58	3.57	210.6
Bajra	2.22	2.24	135.3
Barley	2.48	2.37	121.5
Maize	2.12	2.25	107.9
Sugar	3.16	4.07	538.9
<i>Oilseeds</i>			
Groundnut	1.97	1.89	163.9
Sesamum	.40	.39	60.5
Rape & Mustard	1.03	1.04	116.0
Linseed	.38	.39	38.1
Castor	.06	.06	8.8
<i>Fibers</i>			
Cotton	.69	.51	310.3
Jute	1.74	1.17	135.0
<i>Others</i>			
Tea	.16	.16	150.3
Coffee	.01	.01	10.9
Indigo	.0008	.0005	2.7
Rubber	.05	.04	2.7
Tobacco	.59	.45	159.0
Total	...	...	6,089.2

To the total shown in Table 3 must be added our estimated value of the output of other food grains and food crops, other oilseeds, other fibers, fruits and vegetables condiments and spices, and miscellaneous crops, which together account for 43 million acres of cultivated area. This means an addition of Rs. 1,746.9 millions to the value of agricultural goods detailed in Table 3, thus giving a grand total of Rs. 7,836.1 millions as the value of agricultural output in 1931-32. This excludes the value of fodder crops, stalks, and straw, the same item also not being deducted from the gross value of livestock products. Expenses of agricultural production are calculated by us at Rs. 1,909 millions, being made up of Rs. 235 millions for wastages, Rs. 470 millions for seed, Rs. 540 millions for interest, Rs. 600 millions for maintenance and depreciation of draft cattle, and Rs. 64 millions for repairs and depreciation of agricultural implements. That leaves Rs. 5,927 millions as the net value of agricultural production, excluding fodder crops, stalks, and straw in 1931-32.

Table 4 contains my estimates of the value of livestock products for 1931-32 and is based upon a series of elaborate calculations and ad hoc inquiries for which the interested reader is referred to the author's detailed study of Indian income.

TABLE 4—VALUE OF LIVESTOCK

PRODUCTS, 1931-32

(Figures in millions of rupees)

Milk	...	...	...	2,400
Meat and by-products	...	...	175	
Hides and skins	...	...	57	
Bones	...	...	21	
Wool	...	...	15	
Increments to stock	...	...	15	
Total	...	...	2,683	

The comparatively negligible importance of meat is a reflection of the predominantly vegetarian character of the Indian diet. The poverty of the country is clearly reflected in its milk production, which is estimated at only 37,534 million pounds (margin of error +/−25 per cent), or a daily average of less than 4 pound per head of population. To the value of livestock products we must also add the other items included in the inventory method, viz : Rs. 120 millions for fishing and hunting, Rs. 92 millions for forest products, and Rs. 180 millions for minerals.

This gives us a total of Rs. 9,003 millions as representing the combined income of 68.8 million principal workers, 9.7 million working dependents, and 5.4 million subsidiary workers, all of whom are engaged in what the census terms the "production of raw materials." For estimating the income of the remaining earners, resort is had to the income method.

"INCOME METHOD" ESTIMATES

In order to take advantage of the available income tax statistics and also reduce the working of the income method to manageable proportions ; it is necessary to analyze the statistic of income-tax earners and distribute them over the various occupational groups. This has been done in Table 5. It must be added that the minimum taxable annual income in 1931-32 was Rs. 1,000/- and that the total income of people paying income tax was Rs. 2,161 millions. The reader must also be warned that in India the income tax is levied only on nonagricultural incomes though the number of large agricultural incomes is so low that it will not make a tremendous difference to the number of income-tax payers.

For calculating the income of workers engaged in organized industry, a special survey was carried out by the author with fairly satisfactory results. For the income

TABLE 5—OCCUPATIONAL DISTRIBUTION
OF INCOME-TAX PAYERS
(Figures in thousands)

Occupation	Estimated number of income-tax payers	Total earners in each occupation	Estimated number of earners with income below Rs. 1,000 each
Industry ...	368	14,592	14,224
Service to Government, railways, posts and telegraphs	142	1,627	1,485
Trade and transport	368	6,454	6,086
Professions and liberal arts ...	37	1,440	1,403
Domestic service...	nil	1,861	1,861

of workers in unorganized industry and of artisans, some special surveys were carried out and information available in published village studies and other relevant publications was also utilized. Information regarding the salaries of persons engaged in the service of Government, railways, posts, and telegraphs was specially obtained from the authorities concerned, or the salaries were calculated on the basis of material obtained from them. The estimate of the incomes of people engaged in trade, transport, professions,

and liberal arts is not very satisfactory and contains a large element of guess-work. The incomes of domestic servants have been calculated on the basis of a special inquiry conducted by the author. The results of these calculations are given in Table 6, and relate only to net income.

There now remain to be added the income from house property and other miscellaneous items. Details of these are found in Table 7.

TABLE 7—MISCELLANEOUS INCOME
(Figures in millions of Rupees)

Description	Value
Annual value of house property ...	774
Value of silk	12
Value of poultry products ...	60
Value of honey	10
Pensions	79
Net profits from Government's commercial undertaking	—89
Part of interest on agricultural debt ...	170
Revenue from indirect taxes ...	839
Total ...	1,855

The inclusion of pensions and indirect taxes follows from our definition of national income. Part of the interest on agricultural debt is included because it has either escaped inclusion in income tax statistics or/and is received by moneylenders who are also practicing agriculturists and have not shown moneylending as their subsidiary occupation.

From the total of incomes arrived at so far, certain deductions have to be made which are shown in Table 8.

TABLE 8—DEDUCTIONS

(Figures in millions of Rupees)

Description	Income
Incomes assessed to income tax ...	2,161
Income not assessed to income tax, of workers	
in industry	2,100
in the service of Government, railways, posts and telegraphs ...	590
in transport other than railways, posts and telegraphs ...	283
in trade	1,283
in professions and the liberal arts... ...	416
in domestic service	325
Total ...	7,108

Description	Value
Revenue from indirect taxes ...	839
Interest on internal public debt ...	—160
Excess of exports over imports, including transactions in treasure and capital movements	396
Total ...	1,075

In respect on internal public debt is a negative figure, because we have not taken

into account the income represented by productive public debt.

We can now proceed to give our estimate of the net national income of British India, as shown in Table 9.

TABLE 9

Description	Value in millions of Rs.	Margin of error (percentage)
Value of agricultural output	5,927	...
Value of livestock products	2,683	+10
Value of fishing and hunting	120	+/-20
Value of forest products ...	92	...
Value of mineral products ...	180	...
Incomes assessed to income tax...	2,161	...
Incomes not assessed to income tax workers in industry, trade, transport, public administration, and domestic service ...	4,947	+/-16
Miscellaneous items ...	780	+/-10
Grand Total...	16,890	+/- 6

which, if anything, are a little worse than those in British India; and the figures given here can be taken as broadly representing the economic condition of the whole of India.

That this low figure of Indian income is not merely a monetary estimate but is a true reflection of conditions of real income and standard of life in India is seen from the fact that the estimated food supply of India falls far short of her minimum dietary requirements. In a recent publication on *Food Planning for Four Hundred Millions*, Dr. Radhakamal Mukerjee has estimated the deficiency in Indian food supply at 16 per cent. The present writer, in a paper read before the Indian Statistical Conference, has estimated the deficiency in terms of calories at 17 per cent, and in terms of proteins and fats respectively at 38 per cent and 64 per cent. The deficit

TABLE 10

Description	Total income (In millions of Rs.)		Income per earner		Income per capita	
	Allowing for under-estimation in agricultural income and income assessed to income tax	Not allowing for the under-estimation included in Col. 2	On the basis of total income as per Col. 2	On the basis of total income as per Col. 3	On the basis of total income as per Col. 2	On the basis of total income as per Col. 3
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural ...	12,250	11,658	142	135	51	48
Urban ...	4,928	4,820	436	426	166	162

This gives us a net total income lying between Rs. 15,878 millions and Rs. 17,904 millions, or a per capita income of Rs. 62 with a margin of error of 6 per cent. If we assume that the official estimates of agricultural output are an underestimate by 10 per cent and that there is an evasion of income tax by 5 per cent, the net national dividend for British India for 1931-32 will lie between Rs. 16,651 millions and Rs. 18,677 millions, thus giving a per capita income of Rs. 65 with a margin of error of +/—6 per cent.

Table 10 contains estimates of the distribution of these alternative figures of Indian income between urban and rural populations.

INDIAN POVERTY

Even this bare recital of figures should give the reader ample testimony of the notorious poverty of the Indian people. Conditions in the Indian states, taken as a

in terms of the all-important vitamins is even greater. Dietetic surveys made by Dr. Aykroyd, director of the Nutrition Research Institute, and Mr. B. G. Krishnan in some South Indian villages show that between one-third and one-half of the families surveyed were clearly underfed.

Housing conditions are even worse, not only in the towns but also in the villages; for as the census commissioner of one of the Indian provinces has pointed out, "if village densities were calculated on the area of inhabited site or sites and not on that of the site plus the village lands they would generally be greater than that of any town."

If any further confirmation is required of the reality of Indian poverty, it can be found in Indian vital statistics. The Indian death rate is 24.3 per 1,000 and the rate of infant mortality is 167 per 1,000, while that of maternity mortality is substantially above the corresponding figure for Western countries. I believe I have said enough to indicate the dark and somber background of the economy against which the population of India lives and has its being. Whether this poverty is the inevitable result of the niggardliness of Nature defying the most intelligent and organized application of human intelligence, or whether it is due to the failure of the human factor and can be remedied by a systematic and planned attempt at economic reconstruction administered by a government responsible to the people, is a question outside the scope of this article. But I cannot help recording the belief that Indian poverty is not inevitable and that, given a national government and the adoption of a planned economy, a substantial increase can be brought about in Indian income and considerable improvements effected in India's standard of life and conditions of real income. Reflecting on what Indian income can be helps to dispel the gloom caused by the contemplation of what Indian income is today.

V. K. R. V. Rao, Ph. D. (Cambridge), holds the University Chair of Economics in the University of Delhi, is honorary secretary and treasurer of the Indian Economic Association, and is a member of the Consultative Committee of Economists on postwar reconstruction. He served for five years as principal and professor of economics of a first-grade college in Ahmedabad, and has also served as member secretary of the Bombay Economic and Industrial Survey Committee and as a member of the Provincial Rural Development Board and the Industrial Advisory Board of the Government of Bombay. He is author of Taxation of Income in India, An Essay on India's National Income, 1925-29, and The National Income of British India, 1931-32, and other works.

Handicrafts and Cottage Industries

By J. C. KUMARAPPA

WHILE planned economy is an innovation to the Occident brought to the fore largely by Soviet Russia, the dust of ages has settled on the planned orders of the Orient. The whole of the Indian social order is a planned economy that has been functioning for thousands of years. That it should have served us so well all these many centuries is a monument to the farsightedness of the conceivers and to the soundness of the eternal principles upon which it was based. The Hindu order covers all phases of life—political, social, religious, and economic—while the Russian experiment is confined mainly to the economic sphere. The inauguration of the Russian plan is child's play when compared with the stupendous difficulties of communications in the days of yore when the many-sided Hindu plan was launched over a vast country like India.

A close study of this ancient structure will reveal the bedrock of the philosophy and principles of the economics of permanence which cemented the various constituent parts of this edifice, in striking contrast to the clayey nature of the economics of transience and opportunism which is so characteristic of all Western organizations today.

The Hindus placed man in the perspective of eternity and infinity which makes the seer exclaim : "What is man that Thou art mindful of him!" and to him a thousand ages are but as an evening gone; while the West has made man the lord of creation, and his life of threescore years and ten as a period for self-aggrandizement and indulgence in this universe which has existed for untold millions of years. This fundamental difference in outlook runs through the minutest detail of everyday life, and however fascinating such a study may be, we have not the space to undertake it here. We can only glance at a few of the main features which affect the approach of the Hindu to his economic life.

THE ANCIENT ECONOMIC ORDER

Hindu society is divided into four main groups: (1) the idealistic, which emphasizes the purity of the means ; (2) the altruistic, which emphasizes the nobility of the end ; (3) the materialistic ; and (4) the routine-worker group.

The Hindu plan attempts to avoid exploitation, and aims at distributive justice by maintaining these groups in watertight compartments. In the first group falls the Brahman, who is allotted respect but no property. He gets his food by begging for it. This must be the lot of all brain workers. They are sterilized economically from misappropriating the fruits of their natural endowments for their selfish ends. Their purpose in life is the service of the community through pure means.

The Kshatriya of the second group loses himself in seeking the welfare of society. His glory is the service of his fellowmen, and his reward, social honor and status.

To the third in order belongs the Vaisya, the materialistic merchant and entrepreneur, who amasses wealth but gets no social honor or position other than what he may secure by dedicating his possessions for the use of the community.

The last in this order is the Sudra, who is happy with his salary, pension, and provident fund, and has no courage to take the risks that the third group ventures out on and delights in.

Pruned of all extraneous growth, this is the core of the caste system. It curbs devastating cutthroat competition as a factor in social alignment, and emphasizes co-operation and obedience as the basis of all law and order. It is graded on a cultural standard of values almost unknown to money economy. Material considerations sink into insignificance when human needs claim our attention. Duty and not our rights, determines our position in society. Once these conditions are firmly established, we shall have prepared the way of peace when war shall be no more.

India of per-British days had attained a measure of success in achieving a great many of the objects set forth above. Its trade, though encompassing every corner of the then known world, had no need to be backed by the force of arms. People were not rich as riches are counted in America today; neither does a society organized on the above basis aim at such accumulations resulting in a maldistribution of wealth. Naturally, an equitable distribution would entail a higher average, but hardly any spectacular accumulations. There was a widespread contentment which attracted the attention of other nations. Even to this day, the distribution by castes into various occupations shows how well proportioned the different economic channels were. At present, the old-time primary occupations are represented by the following castes:

Caste	Per cent of Population	Caste	Per cent of Population
Brahmans	5	Oil pressers	2
Kshatriyas	10	Potters	2
Traders	1.5	Tanners and shoemakers.....	4
Agriculturists	50	Washermen	1
Shepherds	3	Barbers.....	1
Carpenters and blacksmiths	3	Scavengers	1.5
Artisans	15	Others	1

Though these castes no longer ply their ancestral trades, yet the figures are indicative of the original proportions planned out. As things are now, over 84 per cent of the people live on the land, as the old handicrafts and cottage industries have lost their place, having been ousted by the cheap imports from abroad.

The welfare of a community depends on a well-maintained balance of occupations, as health depends on a well-balanced diet. In every village there should be a small number of artisans who supply the needs of the village. Man needs other things besides bread—the staple food. If all take to agriculture, the community will suffer from a maldistribution of its talents—a social deficiency disease. This is the main trouble in India. For instance, the old goldsmiths have lost their calling, and their deft fingers have to break stones for road making. The accumulated skill of centuries of the Hindu artisans is now running to waste, which is a loss to the progress of the human race itself. With the changing requirements of modern life the old-time goldsmiths would have been well utilized in making such articles as are in great demand today, say, watches and other timepieces and so forth. India imports these, and lets her skilled sons starve for lack of work.

PAST ACHIEVEMENTS

Before the British smashed this organization, the country was made up of self-governing villages, which employed a common raja to police them and protect them from dacoits and external enemies. They were more or less self-sufficient economically, the export trade being mainly on the surplus production, luxury articles, and curios. The beautiful Dacca muslin that was exported to the London market was the envy of the world. The British manufacturers, who could not compete with these goods on fair terms, soon resorted to protective tariffs against goods from India.

Even as late as 1802, ships and war-ships for England were built by India, and England borrowed plans and designs from Indian builders.

The Gram Panchayat, the governing council of the village, was given such functions as required a long-range view to tackle them satisfactorily. The village production was gathered, the village menials were given a certain amount of grains and other things to assure them a subsistence. A certain fraction of the village production was given to the raja for his defense services. The village had its own schools and managed its public utilities, like tanks, wells, roads, and rest houses. The individual economy was based on the fact of plentiful availability of labor and scarcity of capital. The beautiful buildings, the canals, the tanks, and the trunk roads constructed during that period and existing to this day bear eloquent testimony to the prosperity of the times and to their public spirit.

THE DECAY

The British traders set their minds on destroying their competitors by every means they could use. Military exploits, political intrigues, and economic barriers were all pressed into service to gain their ends. The villages were disrupted, their social order was discredited, the people were taxed for the benefit of British trade, railways were built at the cost of India's providing employment for Britishers, and were so organized as to help in the transport of raw materials to England and the import of manufactures into the country by utilizing special and discriminating freight rates. This policy flooded the remotest markets in the interior with foreign goods and drove our skilled artisans to the already overcrowded land as laborers. With the breakup of the economic order the caste system became a grading of the high and the low by the accident of birth, leading to meaningless snobbery. The foreigners took advantage of this disintegration to establish their regime on the principle of "divide and rule." Economically, India ceased to be a manufacturing country and became a raw-material producer for British manufacturers.

The return from raw-material production is always lower than from occupations engaged in processing the goods for consumption. Therefore, if we separate raw-material producers and manufacturers into distinct watertight compartments beyond political boundaries, the income of the raw-material producers will be definitely lower than the income of the manufacturing group. This has been the effect of British imperialism in India. The raw-material producers (the people of India) have been consigned in perpetuity to lower and decreasing income, while the manufacturers (people of Great Britain) have attempted to assure themselves of the higher-yielding sources. This is the essence of imperialism. Apart from all other causes, this factor

alone could have accounted for the extreme poverty of India at the present day. Where within a political unit both the production of raw materials and the conversion into finished goods take place, the national income making a better average, finds its level at a higher stage.

PRESENT RURAL CONDITIONS

The per capita annual income of a villager today is equivalent to about four dollars in American money. The poverty is so acute that one meets with old women gathering grass seeds for gruel to keep the sides of their stomachs from sticking together. Many have hardly any rags to cover their nakedness. Rickshaws and man-draw carts are on the increase, reflecting the competition of man with the beasts of burden for the "husks that the swine did eat." The people are intelligent and industrious, but have nothing they can turn their hands to. Their few needs are supplied by imported goods, leaving them underemployed and unemployed. Money economy has made it possible to tax these wretched people to build viceregal palaces in Delhi.

There is no governmental help in the form of research to increase the output of the villagers. Such work as is done by research institutes caters to the needs of large-scale centralized industries which till the other day were in the hands of the Britishers.

India claims to be the earliest producer of sugar. The research in sugar cane cultivation has been directed to produce canes with a hard rind like the Co 313 variety, which cannot be crushed by bullock-driven presses, but are useful only to power-driven sugar mills. Mills control prices of the canes. If the agriculturist who leads a precarious existence dares to withhold his cane, he cannot as of old crush this variety of cane himself and make jaggery* or sugar, but has to burn it to clear his field. Thus a farmer becomes almost a factory hand, with this difference, that the factory laborer gets his wages, while the farmer bears the risks of cultivation in a land subject to the vagaries of the monsoon. Similarly, the research in cotton cultivation has resulted in producing long-staple cotton, the seeds of which cannot be fed to cattle. The cotton is sold to mills, and the old-time spinners and weavers are idle; and if they have any financial reserves they use such to buy their clothes from the mills and thus ultimately ruin themselves.

In this way most of the researches undertaken by Government leave the villagers in the cold, and if they do affect them, it is for the worse.

One of the subsidiary sources of income of a villager used to be carting. During the off season when his bullocks are free from farm operations and irrigation, the farmer used to transport goods. With the advent of the railway and the motor lorry, this source has been cut off. One can understand transportation of fish and fruits by the fleet vehicles, where time is of the essence of transport, but why the lorry for transporting from forests timber, which needs time to season? The petrol and automobile interests are too strong to be ignored. Thus every possible channel of earning an income is closing on the villagers, leaving them to poverty, misery, and desperation.

A SUITABLE ECONOMIC ORDER

In laying out blueprints we have to weigh carefully the factors that go to make up the whole. In India, the principal factor is labor, which is running waste. Hence,

* This is a brown sugar product which contains mineral salts, and so forth, and is more popular because of its flavor and nutritive value than sugar, which is purely a chemical product.

our plan should be calculated mainly to convert labor into wealth. This situation is the very opposite of what confronted the early settlers in the United States, where with bountiful Nature, labor was scarce, and this led to the development of labor-saving devices. Large-scale production and centralized industries were the outcome, the products of which contain in their constituent costs, little or next to nothing of labor. This factor places such methods out of court in India, where our problem is to convert labor into wealth. We have to find ways and means of organizing industries for the people in such a way that they will call for little capital for producing goods with easily available raw materials for ready markets at hand.

The famous Kashmir shawls, sold at several hundred dollars each, afford an example of wealth created by labor. The woolen cloth itself costs hardly twenty dollars for the best of them. This is worked upon from three to six months by dexterous embroiderers whose minute and detailed designs no machine on earth has yet been able to copy. Hence, the consumer pays for the labor that has gone into the woolen cloth to make it a thing of beauty and a joy forever, rather than for the raw material because of its rarity or cost of obtaining it, as in the case of diamonds, gold, or the legendary dish of peacock tongues.

Centralized industries which are indispensable and which require capital will fall to the lot of the state. These will work not for profit but to meet the needs of the people. Public utilities, communications, research, production of power, exploitation of mines, quarries, and forests, will fall under this group. Iron and steel corporations can be worked by the state to supply iron bars, steel sheets, and other needs to the blacksmith, for him to convert them into household requisites. But their foundries will also turn out water mains, steel rails, girders for bridges, and such requirements. These state industries will work at cost without any profit motive, and supply the raw materials needed by the artisans engaged in handicrafts and cottage industries. They will not be masters and controllers, but mere adjuncts to decentralized industries. Machines have hitherto been used largely as tools of exploitation. We must safeguard against this state of affairs. Where a process in an industry requires machinery to make what human hands cannot accomplish, the use of machines is indicated and can be availed of with adequate precaution if the profit motive is divorced from such a unit.

EFFORTS AT RESUSCITATION

Several private attempts are being made to organize the people and put them to work gainfully. The All-India Spinners' Association is aiming at making the people produce their own clothing. It is carrying on research on various processes dealing with cotton, wool, silk, and other raw materials. Experiments to improve the tools, such as the spinning wheel and the loom, are being tried out. Artists are engaged in creating new designs. The association has hundreds of centers in villages scattered throughout the country to bring home to the people the results of its studies and carry to them the message of self-sufficiency and self-help in matters of primary needs.

The All-India Village Industries Association is designed to deal similarly with industries other than textiles, such as food processing, oil pressing, jaggery and sugar making, tanning and leather work, paper making by hand, soap preparation, and others.

One or two examples of how we are attempting to help the people economically will be useful to a clear understanding of the method employed.

Until a few years ago, the villagers illuminated their huts by burning vegetable oils in crude open containers. Now this has yielded place, even in the remotest of hamlets, to kerosene oil lanterns. Annually India imports about 50 million dollars' worth of oil, and practically all the lamps, costing about an equal amount, for burning this oil also come from abroad. Hence the people of the land derive no employment in supplying this demand. We have been working on this problem for some months. Kerosene oil, being a thin oil, rises from the container to the burner by capillary action through the wick and burns without using up the wick; while vegetable oils, being thicker, will not rise above their level in the container fast enough to feed the flame. Hence the need for designing a lamp with a gravity-feed burner on the Hero's fountain principle. We are placing these designs on the market. When these lanterns are taken up, the farmer will be employed in supplying the oilseed, the oil presser in pressing the oil, the tinker in making the lanterns, and the glass blower in manufacturing the chimneys. Thus all that employment, aggregating over 100 million dollars in supplying that one requirement alone, which went abroad and starved the masses, will now be retained in the country.

In times gone by, washermen were in the habit of using red earth (which appears on the fields as a white deposit after the monsoon and which is rich in soda carbonate) with lime for washing clothes. Villagers made balls of crude soap for their use from these materials. Now, foreign imported soap has invaded the countryside, and the few soap factories in the country use foreign imported caustic soda. We have turned our attention to this proposition. The red earth is dissolved in water, and the water, when decanted to get the alkaline matter, is mixed with a proportionate amount of lime to produce caustic lye. From this good soap is being manufactured.

In such simple ways attempts are being made to harness the results of scientific knowledge and research for the benefit of cottage industries.

When villagers are working on a self-sufficiency basis, money economy introduces an element of danger, as it tempts people to buy foreign articles. Where markets are at a distance, money becomes the indispensable medium of exchange. Where the need is to convert labour into wealth, barter is a more satisfactory medium. To help poor people to get what they want, a yarn exchange has been introduced in one or two places on a experimental basis. A villager who needs any goods brings to the store a quantity of cotton yarn spun at his home. This is tested as to length and quality, and according to its scheduled standard value he gets a coupon which he can exchange for goods. This immediately affords a ready means of converting labour into consumable goods without resorting to machinery and capital.

CONCLUSION

No elaborate reasoning is called for today to prove that seeking for raw materials from distant places, transporting them to selected manufacturing countries, converting them into consumable goods without reference to demand, by centralized large-scale production, attempting to create a demand by high pressure salesmanship or by political control of markets—all these lead to modern wars. If we wish to abandon war, we must arrange our economic order in such a way that it does not require

periodical upheavals to put right its working. Man is higher than the beast only in the measure in which he has abandoned violence in his life. People are civilized in inverse ratio to the extent to which they utilize violence. Since the days of Buddha, India has held up nonviolence as an ideal. The Hindus have attained a mellowness of maturity in their culture which will eschew with disdain all use of violence in human relations. Might is not going to rule the world, notwithstanding all appearances to the contrary. Mammoths and dinosaurs, with all their gigantic muscles, have had to yield place to the feeble but intellectual man. So also the cultural and spiritual forces will dispel the powers of evil which seem to hold sway today.

If we desire to usher in a world set and organized for peace and good will, there is no other way than to control our greed and curb our avarice. To achieve this on a nation-wide scale, it is imperative that the profit motive be sterilized from large-scale production by reserving all centralized industries to the ownership and control of the state. Handicrafts and cottage industries are nonviolent in a large measure, and can be left with impunity in the hands of private individuals even with the incentive to profit, as such an economy has its own limitations and does not lend itself to exploitation generally. May be life in such a society cannot be based on a multiplicity of wants, but there are other considerations much more vital than material possessions.

Thus we see that the old socio-economic-religious order, which was functioning to bring the handicrafts and cottage industries of India to the notice and envy of the world, has been crushed and changed out of recognition. The equilibrium of occupations has been upset, and as a consequence, poverty and ignorance have gripped the people. Nations are warring against nations to hold such people in eternal subjection so as to build empires on their bones. The only way to remedy this is to make exploitation impossible by reserving by centralized industries to the state, to supply the artisans with raw materials, to arrange to finance and market the goods, and to introduce a certain element of barter, the governmental functions being an auxiliary to the requirements of the artisans.

The organization envisaged above will develop the individual's personality, make for equality of distribution, and lead to real democracy politically; while centralization in economic activity leads to dictatorship and tyranny in politics. India is striving for true freedom for the individual, and if she succeeds in attaining it through the organization set forth above, she will have given the human race a lever to progress towards plenty, prosperity, and peace.

J. C. Kumarappa, F.S.A.A., is professor emeritus at the National University of Gujarat. He was organizer of the All-India Village Industries Association founded by Mahatma Gandhi, and is its secretary at present. He was convener of the Congress Select Committee on Financial Obligations between Great Britain and India in 1931, and was chairman of the Central Provinces Government Industrial Survey Committee, 1939-41. His published works include Public Finance and Our Poverty (1930), Why the Village Movement? (1936), and a Plan for the Economic Development of the North West Frontier Province, submitted at the request of the government of that province.

Industrial Development in Relation to National Resources

BY PADAMJI P. GINWALA

THREE is no infallible yardstick by which we can measure the natural or industrial resources of a country, whether actual or potential; but there are certain raw materials and products made of them from which we can make an approximate assessment of its actual or potential industrial development. Pre-eminent among these are coal, iron and steel, electricity, and chemical nitrogen. They may be regarded almost literally as the parents of almost every industry of any national importance, whether for peace or war purposes. By their abundance and cheapness are primarily to be judged the industrial expansion and prosperity of any country.

IMPORTANCE OF BASIC PRODUCTS

It may be convenient to explain briefly at the outset my reasons for holding this opinion. Of the importance of iron and steel as a factor in the industrial development for war or peace requirements of any country, little need be said. Without many times the present Indian output of steel, it is idle to talk of big shipyards, airplane or automobile factories, or manufacture of machinery, locomotives, or a thousand and one other things during peacetime, or of warships, tanks, armored cars, guns, and all lethal weapons in such enormous quantities as are required for modern war purposes. There has been much talk about India's war effort towards the supply of munitions. How exaggerated this claim is can be judged by the inescapable fact, which will be brought out in a later paragraph, that in a year she does not produce enough steel to last the belligerent powers for three days!

With cheap electricity for motive, tractive, and productive power are tied up cheap transport and the development of peace and war industries for the manufacture of articles of the highest national importance, such as special steels for machine tools and munitions, ferromanganese, ferrosilicon, and other ferroalloys, nonferrous metals of which aluminum is perhaps the most important, nonferrous alloys, and electrochemicals. But the most beneficent of all products of electricity for peacetime is chemical nitrogen, as it is also the most indispensable of all articles for war purposes. For stimulating the agricultural prosperity of India, by increasing its production of rice, tea, sugar cane, and other commodities, cheap and abundant supplies of sulphate of ammonia, and compound nitrogenous fertilizers, which can be manufactured from chemical nitrogen, are indispensable. Nitric acid, which is the basis of practically all war and industrial explosives and of heavy chemicals, can also be made out of chemical nitrogen. Refrigeration, for which there is a great future in India, is dependent on ammonia, while in certain processes for the manufacture of rayon, dyes, and so forth, it is of outstanding importance.

Intimately connected with the iron and coal is the distillation of coal tar, one of the by-products of coke. It is the basis of artificial dyes, for which the Indian textile industry has been wholly dependent on imports from Germany and more recently from the United Kingdom. Many chemicals for domestic, industrial, and war uses, as also explosives, owe their origin to this industry. The manufacture of hydrogen for

the synthesis of ammonia may be extended to the production of fuel oil by the hydrogenation of coal. Even the beginnings have not been made of most of the industries enumerated above, and many others of which space will not permit special mention, which are dependent on coal, iron and steel, electricity, or nitrogen.

The subject may now be examined from three points of view : first, how far India has progressed in these directions by comparison with the rest of the world : second, its natural resources and potentialities for development ; third, what policy the Government of the country should follow to expedite its industrial expansion.

INDIAN PRODUCTION

Coal

It is estimated that the total annual production of all kinds of coal in fifty-two main producing countries of the world is about 1,485 million tons. India with her annual production of about 25 to 28 million tons, hold the ninth place, representing just over 2 per cent of the total. The United States, Germany, the United Kingdom, and the Soviet Union hold the first four places and account for about 80 per cent of the world's coal, while the production of even such a small country as Belgium exceeds that of India by about 5 million tons. It is noteworthy, however, that among Empire countries, India is, after the United Kingdom itself, the largest producer of coal.

Iron and steel

According to official publications,¹ the prewar world production of pig iron was 102 million tons and of steel 133 million tons, of which latter the United States produced 50 million, Russia 17 million, and the British Empire 16 million tons. India's production of pig iron was about $1\frac{3}{4}$ million tons, while that of steel was less than one million.

Though few figures have been published, it has been estimated that since the beginning of the war there has been an all-round increase of 50 per cent in world capacity for the production of pig iron and steel ; but in India the capacity for the production of pig iron, the principal raw material for steel, has remained static at $1\frac{1}{2}$ million tons practically since 1929. The total output of steel which is made from and is limited by that of pig iron, is now estimated at a little over $1\frac{1}{2}$ million tons, to which it is probable that, by the remelting of steel scrap which was formerly being exported, about $\frac{1}{2}$ million tons per annum have been added since the war. The production of steel is thus a little over one percent of the estimated present world output, and perhaps $1\frac{1}{2}$ per cent of that of the Allies.

Chemical nitrogen

Chemical nitrogen presents a far more dismal picture by comparison with other countries. If Chilean nitrate is not available the two main processes for the production of nitrogen are "byproduct" and "synthetic." India's production amounts to about 6,000 metric tons of by-product nitrogen, contained in sulphate of ammonia manufactured by the two iron and steel works. The prewar world capacity was 5 million and production about 2 million metric tons of nitrogen.²

1 Statistics of the British Iron and Steel Industries.

2 Report of the American Tariff Commission 1936.

India's production is thus less than one-eighth of one per cent of world production. More than twelve years ago, the Tariff Board, of which I was then President, made a strong recommendation in its Report on the "Heavy Chemical Industries" for the construction of a chemical nitrogen plant for purposes of national defence in war and for the manufacture of fertilizers in peacetime. No heed was paid by the Government to the recommendation, mainly, it is believed, out of regard for British vested interests. Since the war, it has no doubt realized the folly of its indifference to that recommendation.

Electricity

The world production of electricity is estimated at about 425,000 million units, the United States, Germany, the Soviet Union, and the United Kingdom holding the first four places. No reliable figures of production for the whole of India are available, but it is probably so small that it can scarcely be expressed as a percentage of world production. The hydro-electric plants are estimated to have a total rated capacity of about 500,000 kilowatts. There is no recent estimate of the rated capacity of thermal plants, but it is doubtful whether it very much exceeds 1,000,000 kilowatts.

NATURAL RESOURCES

Coal reserves

Various estimates have been made from time to time of known reserves of workable coal. Until more surveys are made and other fields discovered, 50,000 million tons of all classes of coal would probably represent the extent of the reserves. Of this quantity about 2,400 million tons, or about 5 per cent, was said, some years ago, to be suitable for making metallurgical coke of reasonably good quality. One of the later estimates has reduced this reserve to 1,250 million tons. Discovery of new sources of coking coal; or the development of new process for coking what is now considered noncokable coal, or the smelting of iron by the electric process, may in the very distant future make the shortage of metallurgical coal a matter of less importance than appeared to be the case some time ago. In any case, even on the later very conservative estimate, there is enough metallurgical coal in sight to last for any period which at present may reasonably be taken into account, for the establishment of an iron and steel industry producing 10 to 15 million tons per annum, even by the orthodox processes now in use.

Indian coal has a higher ash content than British, but the disadvantage is more than offset by its lower price, especially for industries in the vicinity of the coal fields. The prewar prices at the pit's mouth were as follows: best steam or coking coal, Rs. 4/8/- (6s. 9d.) per ton; average for all coal, Rs. 3/12/- (5s. 7½d.) per ton: second-class coal, Rs. 2/8/- (3s. 9d.) per ton.

Nearly all the coking coal and the best steam coal mines are in Bengal and Bihar, within a radius of a few miles of one another and about 150 to 200 miles from the principal ore fields, and 150 miles from the port of Calcutta. Several hundred million tons of noncoking coal suitable for economical steam raising at low prices are also to be found in and in the neighbourhood of the Central Provinces, particularly in the Pench and Wardha Valleys, a short distance from Nagpur, the capital of the Central Provinces.

Raw materials for iron and steel .

The principal raw materials required for the manufacture of iron and steel are coking coal, iron ore, limestone, manganese ore, silicon, and fire clay.

Coking coal has been already dealt with. It may be added that the yield of coke from coal is in the neighbourhood of 75 per cent.

India is more fortunate than most steelmaking countries in the matter of its iron ore. What is known as the Singhbhum and Orissa "Iron Belt" alone is said to contain 3,000 million tons of hematite, with 60 to 63 per cent of iron and very low phosphorus and sulphur content. The ore is situated within 150 to 200 miles of the coal fields. The railway freights, though they have recently been raised, are relatively low on ores, and their cost landed at any works within 200 miles should not exceed Rs. 5/- to Rs. 6/- (7s. 6d. to 9s.) per ton. There are other deposits found in the Central Provinces and various other parts of India where no coking coal has yet been discovered.

Limestone of the best quality, comparable with that of other parts of the world, is to be found in India, but at greater distances than would permit of its economic use. But there are cheap and almost inexhaustible supplies of limestone available within about 200 miles of the coal fields or the iron ore mines, which has proved to be quite suitable for fluxing purposes.

An abundant supply of manganese ore exists in the Central Provinces, nearly all of which is exported to foreign countries. At one time the Indian production represented one-half of the world's output, and the exports in a single year exceeded one million tons. The average price at the mines for ordinary ore has varied from Rs. 3/- to Rs. 4/- (4s. 6d. to 6s.) per ton f.o.r. mines. Superior ore with guaranteed manganese content of 50 per cent or more has naturally a higher average price, which has varied between Rs. 10/- (15s.) and Rs. 13/- (£1) f.o.r. mines. The freight from the mines to the works or the nearest port may be between Rs. 2/- (3s.) and Rs. 3/- (4s. 6d.) per ton.

Quartzites of the highest quality are found for the manufacture of ferrosilicon and silica bricks in Bihar and farther in the United Provinces, containing 98 per cent silica. The supplies are ample, and within easy distance of the coal fields.

Both firebricks and silica bricks are now being made in India, which compare quite favourably with, and are sometimes considered superior to, similar bricks made in bigger steel-producing countries.

From the above description of the existence, the cheapness, and the quality of the essential raw materials, it is clear that India is more favourably situated than almost any other country in the world for the production of iron and steel on a large scale. Her iron ore, with an average iron content exceeding 60 per cent, with low sulphur and phosphorus, and its relative proximity to cheap coal and other raw materials, give her a material advantage, which has enabled her to produce the cheapest pig iron in the world. No better proof can be given of this than the fact that for many years she has been able to export to Japan, the United Kingdom, the west coast of the United States, and many countries on the continent of Europe, large quantities of it at competitive prices. With the initial advantage of the cheapest pig iron, the step to the production of the cheapest steel is short one. Judging by the

findings of the Indian Tariff Board, even as far back as nine years ago, that the works costs of making pig iron at the pioneer works of the Tata Iron and Steel Co., Ltd., were only Rs. 18/- (27s.) per ton,¹ it should not be a matter of surprise if the cheapest steel in the world conforming to the British Standard Specifications is now being made in India.

Apart from the rise in railway freights, wages, and imported consumable stores, there are few or no factors beyond the control of the manufacturer of iron and steel in India, for he owns the sources of all the principal raw materials. He is therefore less exposed to the vicissitudes of fluctuating prices of raw materials than most of his foreign competitors. In these circumstances, it can be stated with confidence that the costs of manufacturing iron and steel in a well-balanced up-to-date unit, with all modern mechanized equipment and labor-saving appliances and built on or near the coal fields, should be well below those of any other country making steel by the straight basic open-hearth or the Duplex open-hearth process. It follows that no foreign steel can, without deliberate "dumping," undersell Indian steel in India itself, while, questions of tariff apart, India can export steel as it has been exporting pig iron at competitive prices to many parts of the world, not excluding the United Kingdom or the United States.

Cheap electricity

Though there is in India a belief—almost amounting to a superstition—to the contrary, thermal electricity produced on a modern plant of economic size, on the coal fields of Bihar, Bengal, or the Central Provinces, is 30 per cent to 50 per cent cheaper, delivered at the point of consumption, than hydroelectricity. The reason for this is not far to seek. The construction of hydraulic works is so expensive that the kilowatt cost of the plant has averaged Rs. 860/- (£64), of which two-thirds was accounted for by the hydraulic works alone. Against this, a thermal plant complete with boilers, generators, buildings, and so forth, would have cost at prewar prices not more than Rs. 300/- (£22 10s.) per kilowatt, including 100 miles of transmission lines and substations. The difference in the overhead and interest charges alone would cover the cost of generating steam and maintenance cost many times over.

With coal at the pit's mouth at the prewar price of Rs. 2/-8/- per ton, electricity in bulk can be supplied within a distance of say one hundred miles of a thermal plant erected on the coal fields, at an average price not exceeding 18 as. (22d.), with an average load factor of only 40 per cent. The price will cover all works costs, management expenses, and reasonable depreciation and interest charges on the capital investment. The over-all price will come down as the average load factor rises higher than 40 per cent. The tariff can be so regulated that industries such as chemical nitrogen or aluminum requiring heavy 24-hour loads can be supplied at rates far below, while others pay rates above, the average price.

In fact, the comparison between hydro and thermal electricity is more favorable to the latter than the above figures suggest. In the case of almost every hydroelectric station in India, the electricity has to be transmitted scores of miles before it reaches the point of consumption; whereas if the consuming factories are established

¹ Report of the Indian Tariff Board on the Iron and Steel Industry (published by the Government of India, 1934), pp. 25-27.

on the coal fields, in the vicinity of which are also the principal raw materials of many industries, they can get their current almost direct from the generating station without any appreciable loss in transmission.

Chemical nitrogen

As has been already stated, electricity in bulk can be profitably supplied within 100 miles of a plant on the coal fields at an average price of .18 as. (.22d.) per unit, which may be reduced, in the case of such industries as chemical nitrogen, to a considerably lower figure. It has been said that in the manufacture of synthetic ammonia, which contains 75 per cent of nitrogen, "the procurement in the pure form requisite of hydrogen constitutes the larger part of the cost of nitrohydrogen mixture." The cheapest sources of hydrogen are coke-oven gas and water gas, both of which require cheap coal and coke. As has been shown, these are or can be made available in the coal fields at prices well below those prevalent in other parts of the world. Extraction of hydrogen from coke-oven gas requires about 2,500 units, and from water gas 1,500 units, per ton of nitrogen. The capital cost for the plant is more or less the same in either case. Where coal and coke are not available, the more expensive method of electrolysis of water is employed. The cost of the plant for this process is much higher, while the process requires 15,000 units per ton, and hydro-electricity, where it is cheap, is used. As has been explained, this is not the case in India, and if cheap nitrogen is to be produced, it must be by means of thermal electricity in the coal fields of Bihar and Bengal, where, alone, coking coal is available.

For the manufacture of sulphate of ammonia from synthetic nitrogen, considerable quantities of sulphur are required. India has had to depend on foreign sulphur for the requirements of her chemical industry, including explosives. Recently some deposits of sulphur are said to have been discovered. But there are large quantities of good gypsum available in the country, which, as in Germany and the United Kingdom, can be used as a substitute for sulphur in the manufacture of sulphate of ammonia.

GOVERNMENT POLICY

It will be easy to realize from what has been said that, judged by world standards of the production of iron and steel, electricity, and nitrogen, particularly those of the highly industrialized countries of the world, such as the United States, Germany, the Soviet Union, Great Britain, or Japan, India's industrial development in relation to the cheapness, abundance, and accessibility of her natural resources has not even its infancy. In the extensive development in the first instance of these passed three key industries for which India possesses almost incomparable natural advantages, and for the products of which there is an almost inexhaustible and growing market, lies the industrial future of India.

This task cannot be left solely to private enterprise. Nor can it be successfully achieved merely by a niggardly, hesitant, and dilatory policy of "discriminating" protection administered by an indifferent Government through a peripatetic, and not always happily constituted, Tariff Board. The outlook of the Government must change completely. Considerations for the protection of the export markets of the United Kingdom, and the lachrymose but unconvincing solicitude for the welfare of the Indian ryot who would be crushed by the burden of protection and deprived of his foreign markets for his agricultural products, should give way to the larger interests of

the nation, the rapid creation of national wealth, and the raising thereby of the national standard of living.

The war, with all its incalculable evils, has been a blessing in disguise for India from the point of view of her industrial expansion. She has now a God-given opportunity for laying the foundations of a solid, permanent, and expanding postwar industrial organization. But full advantage of it cannot be taken unless the Government is inspired by a genuine desire to expand the Indian industries, and renders more than lip service to this great national cause.

Army requirements

In most countries the establishment of key and subsidiary industries had its beginnings in the manufacture of peacetime requirements. On the outbreak of a war these industries were converted into war industries and put on a war footing. India has to reverse this process. Immediately on the cessation of hostilities she should establish or expand what would be normally considered war industries. Two propositions have been definitely established beyond any reasonable doubt. First, India can no longer depend on the United Kingdom or other foreign power for her internal or external defense. She must train and maintain her own army and supply it with all modern equipment suitable for her requirements, made within her own borders. Second, in the postwar world, where we hope there will be no nonsense talked about disarmament, India must have her appropriate place in the policing of regions far outside her geographical limits where her real external frontiers will lie. Her postwar army must therefore be built, maintained, and equipped by her own resources on that footing.

It must be the primary duty of the Government, therefore, to ascertain with such precision as may be possible, the minimum strength of the army to be maintained, the kind and quantity of equipment required, including ships, cars, and planes, and the nature and quantities of essential raw or processed materials, such as iron and steel, nitrogen, aluminum ferroalloys, and the like. Government's requirements for the army must be definitely stated and purchased in India, and form the nucleus round which a vast market for the products can be built up and most of the industries enumerated above and many more can be established on a sound footing. There are no essential war industries that are not equally important as peacetime industries.

Supply of electricity

There are, however, other obligations which the Government must undertake. Of these, the most important is the supply of cheap electricity. For this purpose, superpower thermal generating stations should be established on the coal fields of Bengal, Bihar, and the Central Provinces, and along the main railway and suburban lines all of which should be electrified in the first instance on a radius of 150 to 200 miles of the power stations. As has been pointed out, most of the raw materials for the heavy and essential industries are in and around this neighborhood. The railways, particularly the East Indian, pass through the wealthiest (from the point of view of mineral and agricultural products) and the most thickly populated parts of India. In addition to large-scale industries, many mechanized cottage industries, for cotton and jute textiles, iron and steel castings, matches, and

the like, can be established all along the route. Electrification of the railways will immediately give a paying and constant load, while many complicated questions regarding the acquisition of right of way for transmission lines will be avoided. At the same time a large market will be created for the manufacture of electric machinery, motors, electric railway rolling stock, locomotives, and so forth. In the Central Provinces there is a vast field for the manufacture of ferromanganeses, and there and in Bihar for ferrosilicon, by the electrical process, for domestic use and export. Electrification of railways which belong to the Government of India can be determined solely by the Railway Administration. The experience of other countries, much less favorably situated than India, has proved that electric locomotion is cheaper and better than steam.

For important reasons, this work cannot be left to the provinces. First, the railways pass through several provinces. Second, the Government of India, as the owner of railways and armament factories, is the largest single consumer of electricity. Third, the provinces are apt to look upon the production and sale of electricity as a source of profit for augmenting their revenues, whereas the Government of India must look upon it as a national enterprise from which no greater return is to be expected than will suffice to pay the rate of interest at which the Government can borrow money. For very much stronger reasons, the business cannot be left to private commercial enterprise.

Water supply and navigation

For any industry which may be established on or in close proximity to the coal fields, immense quantities of water will be required. The drying up of the rivers in the neighborhood during the three or four months preceding the monsoon has proved to be a source of great inconvenience even to the few industries already located there. This will become far more acute if any considerable expansion takes place. Unless a perennial and bigger supply of water is made available, large-scale industries cannot be established. Government should, therefore, undertake the damming of some of the rivers in this area or even tap the larger but more distant rivers, such as the Ganges, for this purpose.

Lastly, the Ganges and her tributaries must be made navigable all the year round by shallow draft barges, maintained and run by the railways, from the Punjab through the United Province and Bihar, down to Calcutta. This would cheapen heavy, slow-moving transport, and also furnish admirable sites for the location of factories along the banks of the rivers.

Sir Padamji Pestonji Ginwala, Kt.. B. A. (Cam.), Barrister-at Law, has been active in public life in Burma; was a member of the Imperial Legislative Assembly: president and member of the Indian Tariff Board (1921-30); delegate to the Imperial and the Round Table Conferences in 1930 and 1931 respectively; and member of the Ottawa and World Economic Conferences in 1932 and 1933 respectively. He has been connected in various capacities with a number of industrial concerns, and in 1940-41 he was president of the Indian Air Force Pilots Selection Board.

Industrialization in India

By G. D. BIRLA

INDIA'S industrial development has not been commensurate with her resources or her requirements, was the verdict of the Industrial Commission which surveyed the industrial progress of India and published its report nearly twenty-five years ago. Subsequent years have witnessed rapid development of Indian industries such as cotton textiles, iron and steel, paper, and so on. But it is indisputable that the verdict of the Industrial Commission remains true even to this day. It is a commonplace of economic life in India that, despite the so-called industrial progress made in the last two decades, the standard of life of her people is deplorably low, and the per capita consumption of even the most elementary necessities of life, such as food, clothing, and shelter, is one of the lowest in the world. While this is true of consumption, it is common knowledge that a large volume of productive resources in men and materials in the country happens to be in a chronic state of unemployment or underemployment. The per capita production of such vital guides to industrial progress as iron, steel, and coal in India is .005, .003, and .007 ton respectively, as against .3, .4, and 3 tons in the United States, and .2, .3, and 5.2 tons in the United Kingdom.

Judged by whatever standards, one cannot escape the conclusion that India witnesses the pathetic sight that while millions and millions of her people are underfed and under-clothed and are without shelter, there are large productive resources which remain unused, unemployed, or underemployed.

Before proceeding to comment on the gaps in the economic progress of the country which largely account for the present deplorable position, it will be helpful to review briefly the progress made by industries during the last two decades.

COTTON TEXTILE INDUSTRY

The cotton textile industry occupies the premier position in India's industrial life. In 1941, 390 mills were in operation, employing on average nearly 4.5 lakhs¹ workers per day and consuming nearly 42.5 lakhs bales of cotton, 36 lakhs of which were provided by cotton grown in India. The total annual production of cotton piece goods in India has reached the high-water mark of 4,269 million yards per year, which is supplemented to the extent of nearly 2,000 million yards by the output of the handloom industry, which affords employment to thousands of villagers in their spare hours. In spite of the remarkable increase in the output of the cotton textile industry, the per capita consumption of cotton cloth in India is as low as 16 yards, as compared to 64 yards in the United States and 35 yards in the United Kingdom.

The Indian cotton textile industry affords a striking example of the clash of interests which inevitably results when the vested economic interests of the rulers are not identical with those of the ruled. It was largely due to this fact that one witnessed the curious phenomenon, that, for decade after decade, Great Britain imported raw cotton from Egypt and America, converted it into textile products, and sold them in India, which herself had a fully developed cotton-mill industry and whose millions

1. Lakh equals one hundred thousand.

of cultivators grew raw cotton in different parts of the country and at the same time provided a ready market for the finished goods. But, after all, the location of industry depends on certain natural economic factors, such as the availability of raw materials, labor, and favorable weather conditions; and as the Indian business leaders and the people awoke to the full potentialities of their resources, Great Britain gradually lost her ground as the chief supplier of cotton goods to India—a position which she had secured mainly because she was the first in the race of industrialization in the world, and had maintained because of her privileged political position in India. Thus, while India on an average from 1909 to 1914 produced nearly 1,100 million yards and imported nearly 2,600 million yards of piece goods from abroad, today she produces 4,200 million yards to balance the total quantity, of imports of the same amount.

But behind all this progress there is a history of struggle. It would require a book to relate how the cotton industry struggled, battled, and conquered. The largest contribution to its success came from the masses themselves, who, even at a sacrifice, refused to use imported cloth and gave preference to Swadeshi fabric. The cotton textile industry has received a further stimulus from the war conditions. The Supply Department is purchasing as large a quantity as 1,000 million yards for the requirements of the defense forces and countries abroad. If the industry were in a position to import necessary machinery and other parts, there is no doubt that next to Japan, India would attain the position of the largest producer and exporter of cotton piece goods in the countries east of Suez in the postwar years.

OTHER IMPORTANT INDUSTRIES

Next to cotton comes the jute industry, which is the mainstay of the economy of Bengal and, to some extent, of Bihar. India has the monopoly of raw jute production, and the manufacture of jute goods is centered in two places in the world—Calcutta and Dundee. While the cotton textile industry is financed and run by Indian capital and enterprise, the jute industry was originally financed largely by Scotsmen and entirely managed by them; but recently the capital has largely changed to Indian hands, and many Indian firms have even built their own mills.

Indian iron and steel is one of those industries which have a great part to play in the future reconstruction of India. Pioneer efforts to establish the industry were made in the seventies of the last century, but the present expansion of the industry is largely due to the conditions during the last Great War and also to those in the present war. The total production of pig iron and finished steel has gone up from 2.5 lakhs and 1.25 lakhs tons in 1920-21 to 18 lakhs and 11 lakhs tons in 1939-40 respectively. Nearly 38,000 hands are directly employed by the industry, while it provides indirect employment to large numbers of people engaged in ancillary industries such as collieries, railway transport services, and so forth. The growth of the steel industry at Jamshedpur has also been responsible for the development of a large number of other subsidiary industries such as the tin plate, wagon building, iron cast pipe, and wire and nails industries, which have transformed Jamshedpur into a veritable beehive of modern industry. This industry is managed and financed by Indian firms. The Tata Iron and Steel Works is a model of efficiency and order. Yet the progress in steel lags far behind the capacity of the country to produce and consume.

Then comes sugar. From a position of complete dependence on foreign imports in 1931, India has become almost self-sufficient with an annual production of nearly 10 lakhs tons of sugar within the country. The spectacular development of the Indian sugar industry within the course of a single decade is a striking proof of how much Indian labor, capital, and enterprise can achieve if favorable conditions are created. Apart from the sugar industry, a flourishing cottage industry produces gur, which is a common article of diet of millions of India's cultivators.

Besides the industries mentioned above, the cement, soap, glass, paper, cigarette, rubber, leather, and a number of other industries have recorded great development during the period under review.

GAPS IN INDUSTRIAL STRUCTURE

Any survey of the Indian industrial development in the recent past brings out three vital gaps in the present industrial structure of the country : (1) the absence of heavy capital goods industries, (2) the haphazard nature of the growth, and (3) the predominance of foreign capital and management in certain key industries.

Lack of capital goods industries

With the exception of iron and steel, most of the industries referred to above are what one may call consumer goods industries. No one who has been intimately connected with the growth and development of the Indian industries during the last two decades can escape the conclusion that if only her government had awakened to her full potentialities and had adopted a bold and vigorous policy of encouraging the establishment of such vital and key industries as heavy chemicals, engineering, machine tools, automobiles, shipbuilding, and locomotive manufacture, without any interference from the vested interests abroad, besides being in a far better position to tackle her transport and other difficulties during the present war, India would have proved a great source of strength to the Allied nations in the eastern theaters of war.

Apart from this, it is a commonplace of economic theory that the investment in the producer goods industries, such as engineering, machine tools, machinery, and shipbuilding, generates the primary employment within the country which, in its turn, gives rise to secondary employment in consumer goods industries which cater to the requirements of people engaged in the capital goods industries. With vast resources in men and materials in a state of underemployment or unemployment on the one hand, and the growing population on the other, it is imperative that a large-scale planned program of developing large-scale capital goods industries should be organized with a view to raising the people from their appalling poverty to reasonable standards of living.

Several directions in which such industries can be developed can be indicated. For example, the state is the owner of one of the largest railway systems in the world, and the annual capital expenditure program of the railways runs into several crores of rupees. If the annual store-purchase expenditure of the entire railway system is properly planned in advance, it can be utilized as an instrument of encouraging the establishment of locomotive manufacture and other railway parts industry within the country. Similarly, the Army in India is making large-scale purchase of automobiles for its requirements, and if military patronage were extended to develop automobile industry within the country, India could boast of a flourishing motor car industry.

The most formidable obstacle in the way of the development of these industries, which are vital not only to the needs of the population but also to defense requirements, is the persistent opposition from vested interests abroad and lack of freedom for the Government to shape an industrial policy which is in consonance with the needs and requirements of the country. The policy of placing large store-purchase orders for the Indian railways with firms in the United Kingdom is responsible for the tragic fact that the whole of the huge railway system has to depend for every locomotive that it needs on imports from Great Britain, which is separated from India by a hazardous sea journey of over seven thousand miles. The way in which His Majesty's Government has consistently opposed the energetic efforts of a number of Indian industrial leaders to establish an automobile industry within the country during the last two years, on one pretext or another, shows that even in such dangerous times as the present, the British Government would subordinate the vital interests of India to its post-war economic interests. The investigations of the Roger Mission are reported to have been initiated by this undue regard for British postwar interest in preference to the defense interest of the people of India. For the same reason one feels pessimistic about the recommendation of the Grady Mission for accelerating India's industrial progress being implemented by the Government of the country.

The present war has no doubt given fresh impetus to the further development of industries such as chemicals, drugs and medicines, and a large number of other subsidiary industries, and, after a long delay, of the aircraft industry. But it is not so much by the establishment of such subsidiary industries, ranging from ladies' hairpins and brushes to leather goods and clothing for the Army, that the industrial progress of a country can be measured, but by the development of key and large-scale capital goods industries such as engineering, automobiles, locomotives, shipyards, and so on. Clearly, substantial expansion of the present output of the iron and steel industry would be necessary to support a large range of capital goods industries. It should be remembered in this connection that even as a part of reconstruction measures, it is necessary that plans should be made and implemented to develop shipbuilding and locomotive and automobile manufacture so that they will provide an outlet for the surplus output of the steel industry which will be available as soon as the war terminates.

Haphazard growth

The second important gap in the industrial structure is the haphazard nature of its growth. The main objective so far has been to develop industries which will replace the goods at present imported from abroad, by indigenous production. No comprehensive program has, however, been drawn up to mobilize and develop to the full the large resources of the country with a view to increasing production and creating opportunities of employment for India's growing population. The Indian cotton textile industry is now nearly seventy-five years old, but despite this, all the different store parts and the machinery which the industry requires have to be imported from abroad. There is no reason why deliberate attempts should not be made to develop these industries to supply the normal recurring requirements in respect of machinery and other parts for the industries like cotton textiles or sugar. Incidentally, it may be pointed out that with little planning, it may be possible to locate such subsidiar

industries right in the midst of the rural areas in the vicinity of the large textile centers like Bombay, Cawnpore, Ahmedabad, Delhi, Cöimbatore, and others, with a view to creating additional channels of employment for the rural population in their spare hours.

Similarly, there is no reason why India should continue year after year to export her raw materials such as oil-seeds and receive them back in the form of finished goods, instead of converting them here at home and retaining the manufacturing profits. There is a great scope for utilizing oilseeds such as groundnut and linseed for the further development of vanaspati and paints and varnishes industries.

It should be emphasized that it is only by planning the location of such ancillary industries in the rural areas and by linking them with the rural population that we shall succeed in correlating our industrial progress with agricultural development.

Foreign Control

The third important gap in the industrial structure is the predominance of foreign capital and management in such key industries as oil, mining, shipping, banking, and so on. It should be made clear that India needs and would import from abroad real physical capital such as plant equipment and machinery for accelerating her industrial development. What is objected to is not such real capital, but the ownership, control, and direct operation by foreign nations of key and important industries of the country. Such control inevitably implies that undue preference is given to nonnationals in the employment policy, and, what is more fundamental, that only such industries are developed, with the help of the profits earned in India, as are not likely to be competitive with the industries in the home country, without any regard for the resources of this country.

The total foreign capital invested in India was estimated to be about a thousand million pounds in 1931. Fortunately, India has been and is building up a creditor position vis-a-vis Great Britain as a result of the large quantities of goods and services which she is selling to Great Britain, and the consequent increase in the sterling accumulations to her credit.

An important fact which needs to be borne in mind in this context is that India is a seller of goods and Great Britain is the buyer which needs the goods for urgent military purpose. It is therefore Great Britain's responsibility to find the wherewithal to pay for her purchases in India to Indian suppliers. If she could mobilize the dollar securities owned by her nationals in America, there is no reason why Great Britain should not agree to acquire the sterling investments held by her nationals in Indian industries and acquire necessary rupee resources by their sale to the Reserve Bank and through it to the Indian nationals.

Alternatively, the British holders of rupee shares in vital Indian industries could be asked to surrender the rupee shares for an equivalent amount of sterling, and thus rupee shares could be sold to the Indian supplier who is coming into possession of an increasing amount of larger and larger rupee incomes. Besides offering an outlet of investment for the increasing volume of rupee currency, this deal would completely transfer the ownership, management, and control of vital industries to Indian hands. From her own viewpoint, Great Britain would have paid for her purchases in India

and her own nationals resident in India would have additional sterling resources to invest in British war bonds.

CAPACITY FOR DEVELOPMENT

On the one hand, the financing of such industries as cotton textiles, iron and steel, and sugar, and also of the large public debt, and on the other hand, the development of a highly specialized branch of technical production such as iron and steel industry, leave no room for doubt that, given favorable conditions, Indian capital and enterprises would rise to the task of developing the vast resources of the country for the economic betterment of India's own people.

Two main conclusions emerge from the present survey. India must repair, and repair very quickly, the serious gap in her industrial structure in the form of absence of key and vital industries. In trying to make up the gap, the industrial development must proceed side by side with agricultural progress. These developments, however, postulate complete freedom for her Government to formulate an economic and industrial policy which would be suited to her own requirements and to the particular stage of her own development. Given such freedom and given a planned effort to develop the large and magnificent resources, no one can doubt that a very bright future awaits India as a great industrial nation.

Ghanshyam Das Birla is managing director of Birla Bros., Ltd., an Indian firm of managing agents, and has extensive business and industrial connections. He is a member of the Council of Benares Hindu University and chairman of the Indian Institute of Economic and Social Research. He served as president of the Indian Chamber of Commerce, Calcutta, in 1924, and of the Federation of Indian Chambers of Commerce and Industry in 1929 : as members of the Royal Commission on Labour in 1930, and of the Second Round Table Conference in 1931 ; as a delegate of employers at the International Labour Conference at Geneva in 1927; as member of the Central Legislature ; and as unofficial adviser to the Government of India for Indo-British negotiations during 1936-37

Labor in India

By B. SHIVA RAO

FOR a proper appreciation of the problems of labor in India it is necessary to survey, in however broad outline, the main features of the social and economic background.

India has made enormous progress in industrial development during the last quarter of a century. World War I afforded her an unrivaled opportunity for compressing into a space of four years what might have taken as many decades in normal times. An Industrial Commission set out, in the middle of hostilities, to fill the vital gaps in her industrial structure. From the terms of reference two problems were excluded labour : (except in relation to increased production) and, fiscal policy. The latter was left over for special treatment after the war.

In regard to labor, however, the Commission dealt with the widespread complaints about its inefficiency in a few sentences revealing great insight :

If the children of the workers are provided with education under tolerable conditions of life, a new generation of workers will grow up who will learn to regard millwork as their fixed occupation. Better housing is most urgent necessity, especially in the larger congested industrial cities. Facilities for health, amusement, shorter hours of work (though) reduction may for a time decrease output) and other measures for economic betterment, such as cheap shops for the sale of articles required by the mill hands, and co-operative societies, are almost equally important. The problem not only on moral grounds but also for economic reasons, must be solved with the least avoidable delay, if the existing and future industries of India are to hold their own against the evergrowing competition which will be fiercer after the war. No industrial edifice can be permanent which is built on such unsound foundations as those afforded by Indian labor under its present conditions. ¹

INDUSTRIAL HYGIENE NEGLECTED

One of the best-informed witnesses before the Commission was the highest authority on public health in the Government of India, Major Norman White. In an admirable note on industrial development and public health he commented on the almost complete neglect of the subject of industrial hygiene in India, attributing it to the fact that labor in India had been in the past "both plentiful and cheap." He mentioned three diseases as being the most potent causes of industrial inefficiency : malaria, hookworm, and tuberculosis. Of the first two he said :

Both are almost universally prevalent in India ; both exercise their malign influence from earliest childhood and seriously interfere with bodily and mental growth and development ; both, by undermining the constitution, render the body more prone to infection from other diseases. Directly and indirectly they are responsible for an enormous mortality bill.

Tuberculosis he included "because of the special risks with to regard the spread of infection entitled by large aggregations of labor in any but the best hygienic conditions."

Within a year after the publication of the report India had disastrous proof of the truth of Major White's analysis. Two successive waves of influenza swept the country killing within a year, according "to the conservative estimates" of official statisticians, ten to twelve million people.

The fiscal policy of the Government of India was investigated by a separate commission shortly after the conclusion of the war and was modified in accordance with its recommendation to one of "discriminating protection." Behind tariff walls erected during the last two decades have grown up a number of industries—textiles, iron and steel, sugar, cement, chemicals, and so fourth.

LACK OF SKILLED WORKERS

World War II has had the effect, like its predecessor, of quickening the development of a wide range of industries. But in one respect steps have been taken during the last three years which were not considered necessary in the last war ; the lack of skilled workers in sufficient number was recognized to be a serious defect at the commencement of hostilities. With commendable speed a scheme was drafted and put into operation in a few weeks, designed to train every year 15,009 artisans in

¹ Report of the Indian Industrial Commission, 1918.

about 250 institutions, including railway and engineering workshops. Many of these, adapted or improved in equipment, will turn out before the end of the war 50,000 skilled workers a year. Moreover, Mr. Bevin, a member of the British War Cabinet, is primarily responsible for arrangements to train batches of 50 young Indians in different industries in Britain, so far as to introduce in India the standards associated with an industrialized country and a leaven of workers with firsthand experience of trade unionism in Britain and capable of providing intelligent leadership from within the working class.

But for all the progress India has made in industrialization, her staple occupation continues to be agriculture. She was recognized after World War I as being among the eight leading industrial power of the world. It is possible that she has risen during these twenty years even higher on the spiral of industry. Nevertheless, the basic fact remains that over two-thirds of her vast population of 400,000,000 are engaged, directly or otherwise, in agriculture. In recent years, there has tended to grow up a class of workers who look upon industry as their life's occupation. But the mass of the workers still represent the superfluous elements of India's rural population whom an impoverished land cut up into fragments by an out-of-date inheritance law among the Hindus, and tilled by centuries-old methods, is incapable of supporting. Socially and economically, they represent the most backward sections of the population.

One can never grasp the essential core of the problems of the industrial labor without visualizing the constant and ever increasing stream of the hungry unemployed from India's villages pouring into her overcrowded towns and cities. Within the last twenty years, India has added 80,000,000 to her total population, despite heavy infant mortality and the ravages of epidemics. Over sixty years ago, a famine commission observed that the outstanding problem in the country was an excess of population in relation to the capacity of land to feed it.

EXTENT OF MALNUTRITION

How widely malnutrition has spread in India is evident from a striking report made eight years ago Sir John Megaw (the highest medical authority under the Government of India) on the condition of the people in the rural areas, based on an elaborate inquiry, conducted under his direction, by about six hundred doctors settled in typical agricultural villages in all the provinces of British India.

The report opens with the preliminary observation that the village doctors were unlikely to have adopted high standards and the conclusion would have been even more unfavorable if the task had been entrusted to men with European knowledge and experience. In many cases in which the food supply was considered sufficient, there was plenty of evidence in the replies to the other questions that this was far from being the case. But even with the low standards adopted by the village doctors, it was established that only 39 per cent of the people were adequately nourished, 41 per cent poorly so, and 20 per cent came under the category of "very badly nourished." Bengal was the worst of the provinces, its proportions in the three classifications being respectively 22, 47, and 31 per cent.

In nearly 40 per cent of the villages, the population was considered to be excessive in relation to the food supply; while this was the all-India average, the position was worse in some provinces (like Bihar) where the proportion rose to 60 per cent. The conclusions of the medical survey Sir John Megaw stated as follows : (1) India has a poorly nourished population; (2) periods of famine or scarcity of food have been occurring in one village out of every five during a ten-year period in which there has been no exceptional failure of the rains; (3) the average span of life is less than half what it might be; (4) in spite of the excessively high death rate, the population is increasing much more rapidly than the output of food and other commodities.

OUTLOOK FOR THE FUTURE

How serious the future is for India is obvious from the final paragraph of the report :

It is clear that the growth of population has already begun to outstrip the increase in the production of the necessities of life, so that even the existing low standards of economic life must inevitably become lower still unless some radical change is brought about. The outlook for the future is gloomy to a degree, not only for the masses of the people who must face an intensified struggle for bare subsistence, but also for the upper classes, whose incomes depend on the production of a surplus of crops and other commodities. If the entire produce of the soil is needed to provide for the urgent needs of the cultivators, nothing will be left for the payment of rents or revenue, nothing to exchange for other commodities or even for the purchase of railway tickets, and the whole social structure of India must inevitably be rudely shaken, if not completely destroyed.

Malaria, according to the Government of India's annual public health reports, is responsible for over 100,000,000 cases in a normal year, though sometimes the number may exceed 150,000,000. Hook-worm is another widespread disease, though it is worst in the southern province of Madras, in some districts the incidence of infection being over 80 per cent of the total population. Tuberculosis, also a major problem, is "very widely disseminated" and unfortunately is "increasing steadily and rather rapidly." The report observes that every large town is heavily infected, and "an estimate which is based solely on the incidence of the disease in the agricultural villages must be unduly favorable." The indications are that the infection is spreading from the large towns to the villages. This is true in equal measure of venereal diseases and of leprosy, both far more prevalent than official estimates of their incidence would indicate. The fact is that housing conditions are appalling in all the industrial areas, and prostitution is rife. The sex disparity in India's chief cities is worthy of note, being, in places like Calcutta and Bombay, approximately in the proportion of two men to one woman. If a separate census were taken in the working-class areas, the disparity would be even more striking.

Cawnpore, Calcutta, Nagpur, Madura, Ahmedabad, Bombay, and almost every large industrial center, have slums which are hotbeds of disease and vice. The single-room tenement is still the rule, built with little or no regard for ventilation, sanitation, or cleanliness. Into such hovels—many below the street level and liable to flooding after a heavy shower of rain, seldom more than 10 feet by 8 feet—the workers are crowded, sometimes as many as eight, though instances are common of a larger number in Bombay, Calcutta, and Madras. Denied a decent existence, the workers seek escape from the strain of factory life in drink, drugs, and prostitution.

INDEBTEDNESS

The vast majority of the workers are in debt, and although legislation is beginning to make itself felt its possibilities are circumscribed within narrow limits. Corruption is widespread in the factories, particularly at the stage of recruitment, and wages are seldom adequate for even the workers' low standards. Borrowing thus becomes a necessity from which there is no escape, and it is almost impossible to protect the worker from the clutches of the money-lender with his usurious rates of 75 to 150 per cent as interest. A large proportion of the workers' earnings being absorbed in the payment of interest, little is left for the necessities of life.

Milk and its by-products are luxuries beyond the reach of most workers. Dr Wright, a dairy expert who visited India in 1937, estimated that the average consumption of milk in the country did not exceed 7 or 8 ounces a day. But among the workers in several parts of India the average drops to much less than half an ounce a day per head. Investigations in provinces like Bombay have shown that the diet of the average worker is less nutritious than that prescribed in the prison code for a convict. A survey in Madras revealed a consumption of only negligible quantities of vegetables fruit, milk, butter, meat, and fish.

This is the human aspect of industrial labor in India which no one who has worked in the trade union movement can afford to ignore or forget. But there is another, to which casual reference has already been made. The growing industrialization of India has not altered the fundamental character of her economy as an essentially agricultural country, with small-scale and cottage industries still the main characteristic of her industry. Cotton textiles are a notable instance. Mills have made phenomenal progress in recent years, ousting Lancashire from the monopolistic position she held in the Indian market throughout the second half of the last century and up to World War I, leaving even the indigenous handloom industry far behind. A protective tariff, aided by strong national sentiment in favor of homemade goods, has enabled the Indian textile mill industry to increase production by 300 per cent in a quarter of a century, exceeding within the last two years the record figure of over four thousand million yards a year. Nevertheless, the workers in the mills do not exceed half a million, while the handloom in India's villages supports, though precariously, over four times that number.

Precise numbers are difficult to obtain in a country where statistical work is still in its early stages. But not more than thirty to thirty-five million are engaged in industry, of whom, on a generous calculation, perhaps five to six million would be in large-scale industry. The rest are engaged in small establishments employing perhaps ten or twenty workers and engaged in processes not requiring the use of machinery or modern power.

LABOR LEGISLATION

This last feature of India's industrial system needs to be borne in mind in assessing the influence of legislation upon the lives and working conditions of the workers. Within the last twenty years, the maximum hours of work in factories have been reduced from 72 to 54 a week, and the new Factories Act represents a many-sided improvement over its predecessor. The Workmen's Compensation Act to

compensate workers involved in accidents, the Trade Union Act permitting registration of trade union, the Trades Disputes Act providing for the settlement of disputes by negotiations—not to mention the changes effected in the conditions of the miners and the plantation workers—afford sure proof of a determination to bring India's social code into line with that of countries industrially more advanced.

But legislation has so far touched only large-scale industry, leaving out of account the great majority of workers who are engaged either in small industries or in those not using power. The Royal Commission on Labor twelve years ago drew a dark picture of the exploitation of labor, especially of children of tender years, in indigenous cigarette factories, leather tanneries, carpet factories, and the lac industry. Even as regards large-scale industry, the administration of labor legislation is in the hands of provincial governments which have been unable to expand their factory inspection staffs on the scale necessary for a proper observance of the Factories Act. The number of convictions for violations of its provisions is undoubtedly on the increase, but the reports of factory inspectors in the provinces reveal many instances of absurdly light punishments for serious breaches. Beyond a certain point it seems impracticable to enforce a law, the most notorious example being that designed to prevent the pledging of children's labor by their parents or guardians in payment of debts. Over eight years have elapsed since it was placed on the statute book, but singularly little notice has been taken of its provisions.

The picture presented so far is dismal and depressing in many respects. But it is relieved by the persistence and the spirit of comradeship and self-sacrifice of the workers, particularly in building up their organization. Trade unionism has made some headway in India, despite formidable obstacles. The movement came into existence shortly after World War I, when the forces of Indian nationalism were becoming strong. British authorities have always been suspicious of mass organization in India for whatever purpose, and though by legal enactment the workers have a right to form unions, the police seldom relax their vigilance.

There is a friendly understanding everywhere between the police and the employers. In all strikes and lockouts, the police generally act in co-operation with them. Pressure is exerted on moneylenders and shopkeepers to cut off financial help and supplies of food on credit at such times; and when other methods fail, there is a certain amount of intimidation and coercion to induce the workers to return to work. The organization of unions becomes extremely difficult in circumstances such as these. One has to face the hostility of the employers at every stage. Active members of a union may find themselves dismissed on some pretext or other. Funds are extremely small, both because the workers cannot pay much out of their scanty earnings and also for the reason that the employers do not favor those who are actively promoting organization.

Nevertheless, the workers have forged steadily ahead with trade unions, the strongest organization being that of the railway workers, with a federation of their own. The All-India Trades Union Congress, the parent body, is nearly twenty years old, with an aggregate membership of under half a million. But many times that number sympathize deeply with its program and accept its authority, though illiteracy,

poverty, and the hostility of several employers prevent their own participation in its activities. Within the movement are textile unions and organizations of seamen, colliery workers, and those engaged in such industries as iron and steel, cement, and chemicals.

It is instructive to study the history of strikes and lockouts in India since the workers' movement was first placed on a definite basis in 1918. There followed a decade of intense labor unrest all over the country, flaring up into prolonged disputes of several months' duration, and culminating from the Government's side in the appointment of a Royal Commission on Labour. Its report (made in 1931) is the first comprehensive record of the conditions of workers. But in all these eleven years advance even on the modest lines recommended by the Commission has been halting and slow. Only within the last few weeks was an effort made for the first time to bring together representatives of governments, employers, and workers for a common discussion of possible measures of reform.

EFFECT OF THE DEPRESSION

The economic depression of the last decade hit industry and agriculture alike, compelling the workers to adopt for a time a policy of holding on to their past achievements rather than claiming further concessions. In fact, at several centers like Bombay wages were reduced to an appreciable extent without effective protests from the workers. They sought comfort from the promises of leaders like Mahatma Gandhi and Pandit Jawaharlal Nehru, who outlined through the Indian National Congress a comprehensive program including a living wage, adequate housing, maternity and unemployment benefits, sickness insurance, old-age pensions, and free education for the workers and their children.

With the introduction of the new Constitution in 1935 and the installation of the Congress Party in power in seven or eight provinces, it was perhaps inevitable that the workers should make strenuous efforts to consolidate their position in accordance with the party's electoral pledges. The partial economic recovery evident during the latter half of the last decade was a favorable factor for them, as also the greater freedom vouchsafed to organize unions and to conduct strikes. There was in consequence a recrudescence of industrial unrest all over India after some years of comparative quiet. From an average of about 150 disputes in a year, to which the figure had dropped after the general strikes of 1928 and 1929, the number rose suddenly in 1937-38 to 379 (a record only once before surpassed, in 1921), involving industry in a loss of nearly ten million working days.

It is not difficult to say what course industrial labor would have adopted but for the outbreak of the war in 1939. A resolute attempt was inevitable to secure for itself the gradual fulfillment of the program of the Congress Party, particularly in those provinces where it was in governmental control. Apart from the sympathy of this powerful political organization, industrial labor had been accorded direct representation through special constituencies in all the provincial legislatures, although not in the strength claimed by its leaders. Most provinces recognized the importance of the problem of creating a special portfolio for labor. There was, at the beginning of World War II, a conference of labor ministers to co-ordinate the policies of the

different provincial governments and to make a practical beginning with such reforms as minimum wages, sickness insurance, and housing.

LABOR'S ATTITUDE TOWARD THE WAR

The war has interrupted natural developments in more than one way. Labor organizations are not unanimous in the attitude workers should adopt towards the war. The All-India Trade Union Congress, counting in its ranks many influential members who are politically identified with the policy of Mahatma Gandhi and Pandit Jawaharlal Nehru, found itself in a difficult position and close the lines of neutrality. The Federation of Labour, a newly created organization without much real influence, has urged positive and unqualified support. The Communists, whose influence first made itself felt in 1925, have thrown their weight during the last eighteen months on the side of keeping political and economic issues distinct. On the whole, Indian workers have shown little inclination in a period of political crisis to adopt the weapon of the strike for purely political ends.

It is neither easy nor wise to assume the role of a prophet. But certain tendencies, discernible at the outbreak of the war and momentarily in the background, are bound to force themselves into prominence. Legislation on labour has been extremely slow in appearing on the statute book and its enforcement reveals many sad defects. It affects only a small minority of the workers. Vital problems such as sickness relief, a living wage, and adequate housing have not been tackled with energy and earnestness. Meanwhile, the workers have learned the value of organization, the effectiveness of common, action, and are conscious difficulty. Those in charge of her administration will be called upon to deal with the problems of labour in a spirit of deep sympathy and understanding and produce solutions which in comparison with prewar remedies will appear radical. Only a plan of rapid and far reaching reform can save India from disaster.

B. Shiva Rao has been the Indian correspondent of the "Manchester Guardian" since 1934 and the special correspondent of the "Hindu" of Madras and Delhi since 1935. He was a member of the Indian worker's delegation to the International Labour Conference at Geneva in 1929-30, and was one of the labor representatives at the first and second Round Table Conferences in London during 1930-31. In 1933 he appeared before the Parliamentary Committee, London, to give evidence on behalf of the National Trades Union Federation, and represented the Indian trade union movement at the British Trade Union Century Congress at Weymouth, England, in 1934. He was president of the National Trades Union Federation at its Calcutta session in 1931 and a member of the United Provinces Labour Inquiry Committee, 1937-38.

Government Finance

By C. N. VAKIL

THE task of understanding the public finances of a poor and industrially backward country like India bristles with some difficulties. In the first place, the taxable capacity of the people is extremely low. Figures are sometimes quoted to show that the taxation per head of population in India is the lowest among civilized countries. Without going into the correctness such calculations, it may be pointed out that the burden of taxation should be related to the capacity of the people. The average per head income of the people of India is estimated at Rs. 65 per year, which is equal to about 26 dollars per year. In a country where the masses of the people are poor, where large numbers are below the subsistence level, where unemployment or underemployment is so large that the problem is ignored by the state as a chronic malady, the taxable capacity is necessarily so small that the problem of raising taxes for a modern government is bound to be difficult in the extreme.

The second difficulty is caused by the conception of the state of its function regarding the economic life of the people. The state in India has behaved like a police state concerned mainly with the preservation of law and order. The laissez faire policy of the ruling country was applied without due consideration to the requirements of India. It was expected that the masses of India would be able on their own to find an adequate solution for the transition which was bound to be created in their economic life by the impact of Western influence, particularly by the products of modern industry. Due to this mistaken notion, the transition was prolonged and still continues in many parts of country. This has resulted in a want of equilibrium in the economic life of the people; more and more people are thrown onto the land for want of other occupations—land which is already congested and does not yield enough. It was only in recent years that the state undertook the task of direct help to agriculture and industry in a halfhearted manner. These efforts have produced only a snail's progress, and the situation is getting desparate, every day resulting in frustration of the people's desires to obtain a better economic existence.

REVENUE AND EXPENDITURE

It is against this background that the financial position of India should be considered. It would not be possible within the scope of the article to give a full or a historical account of the finances of the country. We shall confine ourselves to recent years. Let us consider for a moment the figures of revenue and expenditure of the last prewar year 1938-39. The total expenditure, Central and provincial, on revenue, account, amounted in that year to Rs. 208 crores.¹ Of these, defense services accounted for Rs. 52 crores. General administration, justice, jails, and police demanded Rs. 30 crores. Some small expenditure was incurred on other minor security departments, bringing the total expenditure on security services to Rs. 86 crores, that is more than 41 per cent of the total expenditure.

¹ Crore = 10 million ; 10 lakhs = 1 million ; £1 = Rs. 13-5as ; 1 dollar = Rs. 2-8as.. at prewar normal rates.

The expenditure on social services was much less — Rs. 34 crores, that is, a little more than 16 per cent. Out of this Rs. 12.5 crores were spent on education, about Rs. 4 crores on medicine, Rs. 10.5 crores on civil works, about Rs. 2 crores, on public health, Rs. 2 crores on agriculture, and Rs. 1 crore on industries, the rest being distributed among co-operation, veterinary, and scientific departments. There was nothing like poor relief, unemployment insurance, old-age pensions, or sickness allowances. Contrast with this the expenditure of the United Kingdom and the United States of America, as shown in Table 1.

TABLE 1—EXPENDITURE ON SOCIAL SERVICES

	Per Cent of Total Expenditure	Expenditure Per Head
India (1931-39).....	16	Rs. 1-0-0
U. K. (1938-39).....	27	Rs. 77-0-0
U.S.A. (1931-32).....	24	Rs. 24-0-0

The contrast becomes much greater when we remember that both in England and in the United States the local bodies spend much more on social services than those in India. For example, in the United Kingdom in 1936-37 the local bodies spent 135 crores of rupees on education, and in

the United States Rs. 368 crores, while in India, with a far larger population, the sum spent in 1938-39 was only Rs. 4 crores.

This contrast becomes glaring when we know that the higher government services in India are among the best paid in the world, that the highest Indian Executive gets many times as much as the United States President or the English Prime Minister, and that Indianization in higher posts, in spite of its great economy and even if suitable Indians are available, is an exception rather than the rule.

TAX STRUCTURE IN 1938-39

The taxation system of the country is equally out of keeping with modern conceptions and trends. The only progressive taxes in the country are income tax and super tax, which yielded Rs. 15 crores out of Rs. 206 crores in 1938-39, that is, less than 7.3 per cent. Even these two taxes compare unfavorably with similar taxes in the United States and the United Kingdom. The exemption level for these taxes is lower than either in Great Britain or in the United States, but the progression in rates is much less. On the higher incomes, the rates in England and the United States are greater than those in India, and the maxima also are much higher. This, coupled with the absence of any death duties, lets off the rich cheaply. There is no system of marriage and family allowances and no differentiation between earned and unearned incomes.

Till recently, all sorts of unnecessary exemptions, like income earned abroad, and pensions and salaries sent abroad, were provided for, evidently in the interests of non-Indians, thus causing a great loss to the Indian treasury. The most notable and unjust exemption persisting even today is that of agricultural incomes. Agricultural incomes, except in three provinces since the coming into force of provincial autonomy, are only subject to land revenue, which is at best a tax at a flat rate on agricultural income fixed usually once every thirty years. In the province of Bengal and some parts of Bihar, Orissa, and Madras, this revenue has been permanently fixed from very early times. This tax yielded about Rs. 26 crores in 1938-39, that is, about 12.6 per cent of the revenues.

The lion's share in the taxation system is contributed by customs, which yielded Rs. 43 crores, that is, about 21 per cent, in 1938-39. To the customs revenue necessities contributed 28.6 per cent, luxuries 32.1 per cent, raw materials and means of production 39.3 per cent. Tax on salt, which is almost like a poll tax, contributed about Rs. 8 crores, that is, 4 per cent. Central excises, most of which are derived from taxes on necessities like sugar, matches, and kerosene, contributed about the same. Provincial excises contributed about Rs. 14 crores, that is, nearly 7 per cent, and most of these are derived from items like country liquor and indigenous articles of intoxication such as toddy, bhang charas, and so forth, to which only the poor contribute, as these are seldom consumed by the upper classes.

PUBLIC DEBT

The management of the public debt of India is a feature on which Indian finance ministers have prided themselves most. A cursory glance at the present position is however, misleading, because it conceals a good deal of the truth. The debts due to the wars of the East India Company and subsequently of the Government under the Crown, incurred mainly to conquer India and consolidate British position first in India and then in Burma on the one hand and in the northwest on the other, were part of the Indian public debt; but this fact is not apparent from recent figures. This debt was reduced with the help of revenue surpluses over a series of years, and it is not possible to show that the ordinary debt of India is comparatively small and is mainly due to the World War.

Table 2 will give a comparative idea of the position of the public debt in India.

TABLE 2

Gross Public Debt as Multiple of Revenue		Debt charges as Per Cent of Expenditure
U.K. (1938-39)	8.4	21.8
U.S.A. (1936).....	8.2	14.0
India (1938-39).....	5.3	6.1

The public debt of the Government of India in 1938-39 was Rs. 950 crores, out of which Rs. 783 crores was due to the railways, which earn their own interest. The public debt of the provincial governments in the same year was Rs. 140 crores, due to expenditure incurred on irrigation works in their respective areas and other schemes of development.

On closer analysis, however, the picture is a vivid reflection of the deep cleavage that exists between the Indian Government and the Indian people, and a sad commentary on the failure on the part of the Government to grasp correctly the first principles of public finance. To take one instance, during the last depression, while in spite of great financial difficulties governments all over the world were increasing their expenditure on public works to fight against the depression, the Indian Government went on reducing its expenditure on similar works in order to balance its budget. As long as its budgets were balanced and its credit stood high, what did it care what happened to the people?

WAR EFFECTS ON EXPENDITURE

The Second World War has changed the position of the public finances for the worse. Even as in other countries, defence services had to be expanded without any regard for expenditure, the technical obstacles being the only limitation. The defence expenditure has, therefore, increased by leaps and bounds; for 1942-43, it is

estimated at about Rs. 135 crores, that is, more than two and one-half times than in 1938-39.

There is a distinction between the defence expenditure of India and the defence expenditure *in* India. The expenditure incurred in India at present is for imperial needs and is on a scale beyond the requirements or the capacity of the country. Out of the total expenditure incurred on account of the various military services, India is charged a certain amount calculated according to a formula which takes account of the basic normal expenditure for such services in India, higher prices, and so on. The remaining amount is paid by the British Government. This arrangement has been the subject of controversy in recent months. It is known that the Indian Finance Member who recently flew to London and back had important discussions on this topic in London. The result of these discussions will be revealed in the next budget.

Other expenditure in connection with war work, such as for civil defence, claimed a few more crores in both Central and provincial budgets. The total expenditure has thus increased enormously. The old taxes could not be expected to bring in the necessary revenue. The stimulus to trade and industry and the consequent increase in money income which the war brought about meant an increase in the proceeds from income tax, but the increase was small considering the new requirements. Railway receipts and receipts from the commercial departments like posts and telegraphs were bound to rise because of increase in commercial activity. But compared to the growing war expenditure, the increase in revenue has been small. In addition, the yield from customs was bound to show a decrease due to cessation of trade with enemy countries and difficulties in trade with neutral countries due to scarcity of available shipping space and the conservation of dollar resources. The greater part of the increase in the expenditure had, therefore, to be met by new taxes and borrowings.

NEW MEASURES

In its new measures of taxation, the Government has, on the whole, acted well. The existing income tax rates were raised by 25 per cent in November 1940 and by $33\frac{1}{2}$ per cent in April 1942. In April 1941 the rates were again enhanced, with the result that now the highest rate is 85 per cent. From April 1940 an excess profits tax of 50 per cent was imposed, which was increased in November 1941 to $66\frac{2}{3}$ per cent. The result of these measures combined with the general rise in income tax due to war has been to raise the proceeds of the Central Government from personal taxes to about Rs. 34 crores. From April 1942 the tax on corporation incomes has been raised from 1 per cent to $1\frac{1}{2}$ per cent. This, combined with the yield from the excess profits tax on companies, has brought in an increase of receipts from 204 lakhs to 2,199 lakhs.¹

While about Rs. 40 crores have thus realized from increases in direct taxes indirect taxes have not been left unexplored. There have been increases in the excise duties on petrol, matches, sugar, kerosene, and silver. A new excise duty has been levied on pneumatic tires and tubes. The result has been an increase in excise duties

¹ Rs. 204 lakhs represents taxes on companies in 1938-39. In 1942-43, Rs. 2,199 lakhs includes excess profits tax on companies and company tax.

from Rs. 866 lakhs to Rs. 1,265 lakhs, that is, about Rs. 4 crores. The customs duties have also been increased. But the factors making for a fall in their proceeds have been too powerful, with the result that in spite of the rise in rates, the taxes are expected to yield about Rs. 41 crores less, thus more than wiping out the increase from excises. There is thus no net increase in the incidence of indirect taxes.

The hard-pressed Government has turned to commercial departments to make up for the increase in expenditure. Railway rates have been increased for passengers by $6\frac{1}{2}$ per cent, and for goods, except food, fodder, and manure, by $12\frac{1}{2}$ per cent. The price of the postal envelope has been raised from one anna to $1\frac{1}{2}$ annas. Telegram minimum rates and trunk-call telephone rates have also been increased. As a result the Government will obtain about Rs. 62 crores in 1942-43 compared with Rs. 32 crores in 1938-39.

EFFECTS OF THE WAR ON PUBLIC DEBT

The war has naturally meant an increase in the unproductive debt at the Centre. The increase, however, has been surprisingly small compared with that in other belligerent countries. By March 1943, the deficits in the war period will amount to Rs. 59 crores.¹ The change in the character of the debt is more significant. The increasingly favorable trade balances that India has as a result of the war, the large purchases made in India on behalf of his Majesty's Government, and the heavy reimbursements the British Government has to make for its share in the imperial defence have resulted in the accumulation of huge sterling balances in favor of India. The best way of utilizing these was in the liquidation of the sterling debt of India, and that has been done. The sterling debt which stood at £299 millions in 1938-39 was reduced to £178 millions in March 1942, and will be wiped out by the end of 1942-43. The strangle hold of foreign capital on India will thus be partially removed. Private British investments in India are, however, not touched by this scheme. Recent suggestions to purchase British private investments in India by means of the new sterling resources which may still accrue created a furore in the British press and other interested circles.

If the war continues longer, we shall have similar additions to the sterling resources to India's credit in the future. What use will be made of these resources is a matter of speculation. Recently the Government of India lent a sum of £30 millions to the British Government in return for the latter's undertaking to pay the railway annuities which become due in future.

As against this repatriation of the sterling debt, we shall now have a dollar debt because of the lend-lease purchases made on behalf of India in the United States. The total of such supplies² and the way in which these amounts are to be accounted for are matters which are still not settled. The way in which this debt is paid in future may have economic repercussions on India, and it is hoped that nothing will be done by which that rapid progress in industrialization which India desires may be in any way hampered by commitments on this account.

¹ This was estimated in March 1942. Due to recent activities the deficit for the current year may be much larger. The increase in debt may therefore be much greater.

² In March 1942, the estimate of the total supplies to be lent to India under lend-lease aid by March 1943 was put at Rs. 46 crores.

WAR EFFECT ON PRICES

In consequence of the huge activity regarding supplies for the war both for India and for the Allies, prices have risen in some cases by more than 100 per cent. Imported articles are of course scarce, and goods locally produced have also become scarce. Some limited measure of food control which aims at the proper distribution of food supplies in the country is being tried. Such efforts at controlling prices and supply can have only a partial effect, as the main factors which increase prices and create scarcity are not easy to control. The currency circulation has increased by 250 per cent since the war and is rapidly increasing every month. The demands for the war effort on all varieties of goods create the scarcity, which will continue in greater intensity throughout the war.

The gulf thus created between more purchasing power in the hands of the people and less goods for civilian consumption is bound to lead to desperate situations. The problem of keeping up the morale of the people is most acute in this sphere, the intensity of which does not seem to have been fully realized.

FUTURE OF INDIAN PUBLIC FINANCE

The war has thus brought about no unwelcome change in the tax system. The tax burden has undergone a slight change in favor of the poor. It has also not brought any great increase in debt. But it has increased much the burden of security services. Much of this increase may become a permanent feature of Indian finances, necessitating a much higher level of taxation than in 1938-39 or a heavy reduction in social services. Many of these services have been greatly starved in the past in spite of vehement popular agitation. In the future the demand for these is bound to become more and more intense. The only possible course of a wise statesman will be greater taxation on the rich, more borrowing, and stringent economy. The successful tackling of the financial problem of India will require the highest statesmanship, broad vision, and great courage. Unless the taxpayer is able to feel that the taxes paid by him are used directly or indirectly for his benefit, and that he has a voice in both raising the taxes and spending them, he is not likely to be appeased.

In this sphere, the people of the country have very limited control. The political deadlock in the provinces after the resignation of the Congress Ministers in the eight provinces on the issue of war in 1939 has resulted in the assumption of complete powers in the provinces by the Governors. The Legislative Assemblies in these provinces are defunct and the budgets are merely gazetted by the authority of the Governor. In remaining three or four provinces, where the Provincial Ministries function the status quo is maintained in the financial sphere, as no new schemes are possible during the war. The Central Government retained its old bureaucratic form, as the federation contemplated in the act of 1935 did not materialize. The Central Executive is entirely independent of the Legislature. Regarding the Central budget, more than half the budget is not subject to the vote of the Legislative Assembly. Besides, the Governor General has powers to restore grants refused by the Assembly and sanction finance bills or taxation measures rejected by the Assembly. These powers have been used often in recent years.

The bold and sympathetic outlook necessary to change radically the present anomalies in the finances of the country can be expected only from a national government which has the people's will behind it. A foreign government is not likely to design its policy on national lines. On the contrary it is likely to look upon the dependent country as a dumping ground for the development of its trade and the employment of its youth. It will contrive special means to help its trade and create a network of vested interests under high-sounding and apparently innocent names. It will insist on putting its own nationals in key positions in the government of the country and pay them salaries much higher than those given for similar work elsewhere, and much above the standard of the local population. It will create artificial standards of life among certain people by taking into its fold some nationals of the country who are willing to carry out its behests, and also pay them similar high salaries.

In other words, all the evils of the old colonial policy by which the mother country looked only to its trade advantage and maintained the colony in a backward state as a supplier of raw materials and a market for its own goods are repeated under these conditions. Unless the nature and the form of the government are fundamentally changed, making it possible for the people of the country to evolve an economic policy suited to its own genius and requirements, the finances of the country will not reflect the correct economic condition and progress of the people.

C. N. Vakil, M. A. (Bombay), M.Sc. Econ. (London), has been University Professor of Economics since 1921 and administrative head of the School of Economics and Sociology since 1930 at the University of Bombay. He is a member of the Consultative Committee of Economists for Post-War Reconstruction. He was president of the Indian Economic Conference in 1934. He is a editor of a series entitled Studies in Indian Economics, comprising fifteen volumes embodying results of research work done by himself and his students.

Tariffs and Fiscal Policy

By B. P. ADARKAR

THE development of the Indian tariff and tariff policy during the last hundred years or so, i.e., from the days of the East India Company to our own times, has been marked by a slow transition from laissez faire to a cautious protectionism, and by a constant conflict of commercial interests between India and Britain. The "plantation" theory of the old colonial policy, which dominated the fiscal relation of the British Dominions and colonies with the mother country in the earlier stages of the history of the British Empire, has also to a very large extent influenced tariff making in India. In consequence, right up to 1923, the fiscal policy of the Government of India remained free-trade in its orientation, and revenue, rather than any program of industrial development, was the dominating consideration in determining tariff rates.

The financial embarrassment caused by the Mutiny of 1857 was mainly responsible for increase in both import and export duties. In 1859 the general rate of duty was raised from 3 to 10 per cent, while the duties on cotton yarn were raised from 3.5 to 5 per cent. This led to a great uproar in England, and pressure was brought upon the Government of India through the Secretary of State, who declared that "Parliament will not allow the only remnant within the direct jurisdiction of the English Government to levy protective duty which so far as it operates at all is hostile to English manufactures."

In 1878-79 Sir John Strachey, Finance Member, who came out to India with a mandate for the abolition of duties, exempted cotton goods and several other articles from duties. The period 1882-94 was one of complete free trade; but after 1894, owing to the depreciation of the rupee exchange, and frontier wars, the Government was forced to impose fresh taxation to meet the rising expenditure on account of the "home charges" and defence. This time, however, import duties on cotton goods were accompanied by a countervailing excise duty to nullify the protective effect. Barring increases in duties on bounty-fed foreign sugar, this position remained unchanged right up to the last war.

The advent of the Great War I necessitated further all-round increases, while its aftermath brought about an economic crisis in 1921, which faced the Government with an enormous deficit of Rs. 190 millions. This was also a period of important political changes ushered in by the Reforms Act of 1921. As a concomitant of those changes it was agreed, under what is styled the Fiscal Autonomy Convention (1921), that the Secretary of State would not generally interfere in any fiscal decisions when there was agreement between the Government of India and its legislature.

DISCRIMINATING PROTECTION FORMULA

The Indian Fiscal Commission of 1921-22, which was appointed to examine the question of an appropriate fiscal policy for India, voted in favour of "discriminating protection." It elaborated its scheme of protection by specifying the conditions under which protection was to be granted to an applicant industry, as follows :

1. The industry must be one possessing natural advantages, such as an abundant supply of raw material, cheap power, a sufficient supply of labour, or a large home market.
2. The industry must be one which without the help of protection either is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country.
3. The industry must be one which will eventually be able to face world competition without protection.

Apart from these conditions, an industry which enjoyed the economies of diminishing costs, or could eventually supply the entire home market, or was essential for national defence, or was a key or basic industry, could also be considered for protection.

APPLICATION OF THE POLICY

The policy of discriminating protection was adopted by a resolution of the Legislative Assembly in 1923, which also recommended the creation of a Tariff Board. The

Tariff Board examined about fifty cases referred to it during the period 1924-39, the principal ones being those of the iron and steel and allied industries, cotton, wool, and sericultural industries, paper, matches, sugar, heavy chemicals, cement, oil, gold thread, magnesium chloride, plywood and tea chest, and glass. For want of space, it is not possible here to review the decisions of the Board in each case, but only a few industries can be considered.

After the crisis of 1921, the Indian steel industry, represented mainly by the Tata Iron and Steel Company, had to face the competition of foreign, especially European, producers of steel whose capacity was inflated by wartime expansions, and who were able to carry on both monopolistic and exchange dumping in the Indian market. It is thus difficult to say how far the protection which was granted to steel from 1924 onwards was "substantive" rather than antidumping in character; but there is no doubt that owing to its inherent advantages, the industry has made great headway during the past two decades, and in 1938 the Tatas announced that they would be able to do without protection in 1941, when the revision of protection fell due. A large number of subsidiary industries have also arisen, such as the tin plate, wagon manufacturing, wire and wire nails, tubes, and re-rolling industries; which proves the cumulative value of protection to a country like India.

The cotton textile industry, the largest single industry in India, also suffered from the aftereffects of the crisis of 1921, the appreciation of the rupee exchange to 18d., and foreign, especially Japanese, dumping. This industry obtained a moderate level of protection in 1927, mainly on the ground that it was an industry of great national importance. Here also the level of protection granted suggests that it was anti-dumping rather than substantive in character, although the Tariff Board in 1932 conceded the theoretical justification for granting substantive protection to the industry.

The protection granted to the sugar industry, on the other hand, was definitely developmental and substantive, and one of its main objects was to assist agriculture by the creation of a commercial crop, viz., sugar cane. Protection was granted in 1931, but this led to overproduction of both sugar and sugar cane, and excise duty was introduced in 1934, both with a view to curtail production and to support the exchequer. The industry experienced great difficulties during the period 1934-36, but by 1937 prices of sugar revived, and the formation of the Indian Sugar Syndicate also helped in reconstruction of the industry. One important consequence of protection here has been that India is now the biggest producer of raw sugar in the world.

In 1923 protection was also granted to the paper industry, for the chief raw material is bamboo pulp. The material largely in use before that time was sabai grass, but as this was very costly, it had little chance of success; so protection was granted to departmental purposes and for exploring the possibilities of bamboo as the chief material. But mechanical wood pulp continued to be used for some time whereupon in 1931 the Tariff Board recommended that with a view to developing the bamboo pulp section, there should be a duty of Rs. 45 per ton on foreign wood pulp. Protection was continued in 1932 and 1939.

In the case of the match industry, the problems were peculiar. Under the shelter of a revenue duty of Rs. 1-8-0 per gross of match boxes, a number of Indian match factories had arisen ; but they had to face the competition not only of foreign producers but of an international combine, viz., the Swedish Match Company, which controlled about 60 per cent of the Indian production internally. It was admitted that the Swedish firm, through its subsidiaries, was employing its huge resources for establishing a monopoly in India. Unfortunately, the mere grant of protection could not have dealt with this situation, and the Government, for constitutional reasons, is not yet prepared to take discriminatory action.

Likewise, protection was granted to the heavy chemical industry in 1931 for a period of two years only, but was later withdrawn on the ground that the industry was not properly organized. The Tariff Board was strongly in favour of protection in the case of this industry, on the ground, among others, that it was a key industry ; but it must be stated that the Government's action in withdrawing protection was somewhat premature and unjustified.

The case of the glass industry, which was refused protection in spite of the unanimous recommendation of the Tariff Board, is somewhat on a par with that of heavy chemicals. The industry possessed a majority of the advantages postulated by the triple formula of discriminating protection, and the Tariff Board had stated that its dependence on foreign imports in respect of a single material, soda ash, was not to be considered a bar to protection.

Oil, coal, and cement were some of the other industries which could not obtain protection ; but in their case there is reason to believe that rejection of claims was a little less unjustified.

IMPERIAL PREFERENCE

The emergence of imperial preference within the general framework of the Indian tariff is a new development which has complicated the fiscal situation. Lord Curzon's government in 1903 rejected imperial preference, but the Indian Fiscal Commission, after condemning it on theoretical grounds, curiously enough, suggested a system of "discriminating preference" governed by the principles of (1) the approval of the Legislature, (2) maintenance of required protection for Indian industry, and (3) avoidance of appreciable loss to India on balance. Along these lines, preference was granted without any *quid pro quo* in 1927 and 1930, and differential duties were levied on British steel and cotton piece goods respectively. Then came the Ottawa Agreements of 1932, 1935, and 1939, which were largely a Hobson's choice for India, "a reciprocity without the freedom to reciprocate." The Indo-Japanese Agreement of 1934 and 1937, which provided for a definite linking of imports of Japanese piece goods on a sliding scale with exports of Indian raw cotton to Japan, was on a slightly different footing. But there is no doubt that the inroads made by preference upon protection have been, on the whole, harmful to the cause of Indian industrialism.

TARIFF MACHINERY

The tariff machinery erected for giving advice on questions of protection and tariff equalization was the Tariff Board, now in abeyance. It was created by a

resolution of the Legislature which stated, *inter alia*, that the Board "should be purely an investigating and advisory body, and should consist of not more than three members." There is no statute laying down the precise functions and procedure of the Board, and while the formula of protection was, in general, the guiding principle, the Report of the Indian Fiscal Commission was also regarded by the Board as having documentary importance.

The composition of the Board was not so judicial in character as, for example, in the United States or Australia. Out of a total of 113 positions held on the Tariff Board since its inception, 70 were held by officials, while the rest were held by businessmen, economists, and publicists. It is not clear whether the Board was an ad hoc or a permanent body. In view of the fact, however, that appointments were for short duration and dependent upon the pleasure of the Government for renewal, it was undoubtedly ad hoc in effect. The fact is that the Board never enjoyed the status of an independent economic judiciary, but was always dominated by red tape and routine. In this respect it compared unfavourably with parallel machinery both in the United States and in Australia.

Again, although the Board was invited to undertake periodical investigation of protected industries, usually every seven years, it was never required to keep a constant watch or make a continuous study of the data regarding *post*-protection developments in an industry. Further, the Board was barred from investigating the effects, even in an advisory capacity, of, for example, revenue duties or preferences, unlike the Import Duties Advisory Committee in Britain or the Tariff Board in Australia.

The procedure of protection was desperately slow, and many a struggling industry all but collapsed while the laborious and sometimes unnecessary formalities were being gone through. An application for protection had to pass through several bottlenecks before its final acceptance by the Government, and nothing like a direct appeal to the Tariff Board was possible. The executive enjoyed an undue measure of power to interfere at every stage, and there is no doubt that much time was lost owing to references backward and forward. Consequently, the output of work of the Board has been very poor as compared to that of the American, Australian, or British tariff machinery. In a country where the Government of the day has not been particularly sympathetic to industrial development, this has undoubtedly been a great impediment.

EFFECTS OF THE WAR

The advent of the Great War II has brought out the essential weaknesses and defects of the Indian industrial structure very glaringly. Especially in respect of heavy chemicals, automobile, engineering and machine-tool, metallurgical, locomotive, glass, and other industries, our backwardness has been fully exposed. While the war has no doubt given incidental protection to industries, old as well as new, transport and exchange difficulties have rendered it impossible to obtain the plant and technical advice necessary for their development. Even from the purely short-run point of view, the development of key and defence industries during war has been highly desirable. The Chatfield Committee, which investigated the question about five years ago, as

well as the Roger Mission and the still recent American Technical Mission, emphasized this aspect of wartime industrialization. The Government of India has made a belated attempt to renovate the industrial structure and in 1940 the Commerce Member announced that the Government intended to "liberalize" the conditions of protection, and gave assurances of postwar protection to industries useful to the war effort. The Government has also announced that after the war there will be a full-fledged inquiry into the entire question of fiscal policy at the hands of a commission. In view of these promises, it is hoped that the history of the aftermath of the last war will not be repeated, and that the new industries—"the war babies"—will not be allowed to die as they were after the last war.

POSTWAR POLICY

From India's standpoint, postwar policy is far more important than any time-serving devices adopted as part of the war effort. Fiscal policy, rightly conceived, can be potent weapon of policy in postwar reconstruction. The formula of discriminating protection will need overhauling and must be replaced by a simpler and more straightforward formula, revision being made somewhat along the lines of the British Safeguarding of Industries Act, while its application must be made in a comprehensive manner—not piecemeal as hitherto. Further the machinery and procedure of protection need drastic alteration, especially with a view to expediting assistance instead of "bolting the door after the horse is stolen." To conclude, as stated by me elsewhere:

The riddle of India's poverty and its array of vicious circles can be resolved only if we make a frontal attack on the problem of Unutilized Resources. This implies a silent revolution in the technique of industrial and agricultural production under the auspices of the state. Technical education, industrial research, active participation in the development of existing and new industries, state patronage, facilities for cheap credit, efficient transport and marketing—these and several other functions must be forthwith assumed by the state to the fullest extent. In India, unfortunately, the business of governance is still being largely carried on along the lines of outworn, Victorian ideals of *laissez faire*. . . . There is no doubt that the urgent problem before the country is the adaptation of this antediluvian machinery of the state to the needs of the modern age.¹

Let us hope that the new order which will emerge after the war will make all this possible.

B. P. Adarkar, M.A. (King's College, Cambridge), is reader in economics at Allahabad University. He has been secretary of the Fact Finding (Handloom and Mills) Committee of the Government of India, and is a member of the Consultative Committee of Economists for Post-War Reconstruction. He is managing editor of the Indian Journal of Economics, and author of Principles and Problems of Federal Finance (1933), The Theory of Monetary Policy (1939), The Indian Monetary Policy (1939), and The Indian Fiscal Policy (1941).

¹ *Indian Fiscal Policy* (1941), p. 610.

Currency and Exchange

By PURSHOTAMDAS THAKURDAS

THE history of the Indian Rupee goes farther back than the beginnings of British rule in this country, to A.D. 1233 ; but it was not till 1818 that the rupee was unlimited legal tender for Southern India, and 1835 for the whole of British India. Thus the East India Company decided to make the rupee the standard coin throughout India in 1835, and India entered upon a period of silver monometallism. Gold coins, however, continued to circulate and were given official recognition, the ratio of exchange being changed from time to time.

During the middle of the century the difficulty of obtaining silver, and the growing currency requirements of the people led to a demand for the replacement of the silver standard by a gold standard. If the demand had been then acceded to, the country would have escaped a number of currency troubles ; but the British Government, while firmly maintaining the gold standard for Britain and watching the gradual transition in Europe towards the same, was not prepared to allow similar facility to India. All that it conceded to the growing demand for currency was to permit the introduction of paper in 1860 : but this was not of any substantial assistance, as the fiduciary limit was fixed at the very low figure of Rs. 40 millions.

The fall in the gold price of silver which took place from 1870 onwards led to a major crisis in India, as our revenue was collected in rupees, while our foreign obligations were in gold. Taxation was repeatedly raised, the gold value of the rupee fell precipitately from two shillings to nearly one shilling to the rupee and the Indian budget became a gamble in exchange. The Government of India was represented at the several international monetary conferences that were convened during the period 1873 to 1893, and for some time the world toyed with the idea of an international bimetallic standard ; but this project ultimately fell through, mainly because of the opposition of England, and in 1893 the Government of India asked the British Government for permission to close the Indian mints to free and open coinage of silver, and to embark upon a gold standard.

VARIOUS RECOMMENDATION

The British Government appointed a committee (the Herschell Committee, consisting entirely of British personnel) to consider the question. This committee recommended the closing of Indian mints to the coinage of silver and the introduction of a gold standard after the exchange value of the rupee had appreciated sufficiently. The rupee thus became a token coin, and its exchange value rose to 1s. 4d. by 1897. The Fowler Committee (totally British in personnel), which was appointed in the following year, recommended the introduction of a gold standard with a gold currency in India. The rupee was to remain unlimited legal tender, but was to be supplemented by gold sovereigns, the value of which was fixed at Rs. 15/- each. A mint was to be opened in India for the coinage of gold, while the coinage of rupees on private account was prohibited. The Government, however, could coin rupees on its own account to meet currency requirements, and the profits on such coinage were to be kept in a special reserve known as the gold standard reserve, which was to be utilized for maintaining the gold value of the rupee.

Due to difficulties created by the British Treasury the scheme for opening a gold mint in India fell through, and the country drifted on towards a gold exchange standard, as the British Government sold rupee bills in London in exchange for sterling at the rate of 1s. 4d. to the rupee. The reverse process, viz., sale of sterling bills in return for rupees, was not instituted till 1907, when an adverse balance of trade threatened to bring down the exchange value of the rupee. Thus between 1899 and 1913 the Indian currency system evolved into a sterling exchange standard, the rupee being the principal means of circulation, and Government being willing to sell rupees in return for sterling ad libitum but not eager to show the same willingness to sell sterling in return for rupees.

Indian public opinion, however, continued to remain dissatisfied with the Government's handling of the currency problem, and demanded the implementing of the Fowler Committee's recommendations for the establishment of a gold standard with a gold currency. Government appointed another commission (Royal) to consider the question. This body included Mr. Keynes among its members, and was presided over by Mr. Chamberlain. The Chamberlain Commission (consisting of ten members including one Indian) gave its approval to the currency policy of the Government of India and declared that the people of India neither wanted nor required gold as standard for India and suggested certain improvements in the currency practices of the Indian Government.

WORLD WAR I AND AFTER

The war of 1914-18 intervened and nothing was done to implement the commission's recommendations. The war saw a great rise in India's favorable balance of trade, together with a sharp rise in the price of silver; and by August 1917 the price of silver exceeded 43d. per ounce, at which level the bullion value of the rupee equaled its currency value and it became profitable to melt the rupee and sell it as silver. This danger was countered by Government by raising the rate at which rupee bills were sold, and therefore, the exchange value of the rupee in sterling.

In 1919 the Government appointed another committee (Babington-Smith Committee, consisting of eleven members of whom one was Indian) to advise it on the rate at which the exchange value of the rupee was to be stabilized in view of the rise in the price of silver. One would have thought it a very fool-hardy thing to think of stabilizing exchange under such unsettled conditions and on such an unsteady basis as the abnormal rise in the price of silver, but the Babington-Smith Committee recommended by a majority, the late Sir Dadiba Dalal dissenting, that the exchange value of the rupee be stabilized at 2s. gold, which meant about 2s. 10d. sterling. Government accepted the recommendation and legislated accordingly, but the market value of the rupee started to fall. Government stepped in and tried to maintain its legal value by selling sterling and meeting the sales by the sterling reserves the country had accumulated as a result of her favorable balance during the war, but the attempt failed. Government then tried to maintain the value of the rupee at 2s. sterling. This also failed, and Government left the rupee alone.

In the net result, over £55 million of sterling reserves accumulated by the country during the war were dissipated by Government in the course of a few months.

The Government thereupon embarked upon a policy of deflation to raise the exchange value of the rupee. The rupee, which had fallen to 1s. sterling, gradually rose and reached 1s. 4d. in 1924. This was a golden opportunity to stabilize the exchange value of the rupee at its prewar value; but Government was anxious to raise the value of the rupee still further, evidently in the interests of the British import trade and remittance to Britain on favorable terms of her Indian profits, and it went on with a policy of deflation. The exchange value of the rupee rose to 1s. 6d.

In the meanwhile, a Royal Commission was appointed to examine the question of Indian currency. This Commission (the Hilton Young Commission, consisting of ten members of whom four were Indians) recommended the introduction of a gold bullion standard. Regarding the stabilization of the rupee at 1s. 6d. gold, the recommendation was not unanimous. The present writer dissented by a separate minute on this, recommending 1s. 4d. As the reserves were to be kept in gold or sterling, this really meant the introduction of a sterling exchange standard, with a tinge of the gold bullion standard about it. The fixing of the exchange value of the rupee at 1s. 6d. was strongly opposed by the Indian business community and Indian economists, on the ground that it over-valued the rupee; and the bill providing for that legal value was carried by a bare majority of votes in the Central Legislature, this majority being really the result of nominated members.

THE FALLING RUPEE

The forebodings of the Indian economists and businessmen were soon found to be justified. After a year of uneasy stability, the rupee began to sag in 1928. Government began a policy of deflation and supported the exchange by borrowing sterling in the London market. The world depression which began in 1929 worsened the situation, and a vigorous agitation was started in the country for a policy of devaluation. Government remained unimpressed and added to the distress caused by the depression by a determined though untimely policy of deflation. Distress sales of gold began in the country and the value of the rupee fell below the gold export point.

Fortunately for the Indian Government, Britain went off the gold standard on September 9, 1931. The Indian Government immediately issued an ordinance relieving its currency department from the obligation of selling gold or sterling in return for rupees, and the rupee became a free unit. Three days later another ordinance was issued canceling the ordinance of September 9 and linking the rupee to sterling at 1s. 6d. Thus the rupee once more became linked to sterling, after an uneasy period of apparent association with gold for four years; and there the rupee remains to-day, linked with sterling at the rate of 1s. 6d.

THE BRITISH MOTIVE

Before giving a description of the present currency position in India, it is well to recall the consistent way in which the British Government has been following a policy of appreciating the exchange value of the rupee, and further of tying the rupee to the apron strings of sterling. The Government did this in 1893, deflating deliberately in order to raise the value of the rupee; again in 1919, when it went too far and had to give up the attempt after wasting £55 millions of Indian resources; again in 1927; and there is evidence to show that the British Government was anxious for a still higher rise in the value of the rupee.

The motive behind this persistent desire for an appreciated rupee is obvious ; it meant a better opportunity for the British import trade in this country, and better terms for remitting salaries and profits earned by British officials and businessmen in India. The effort to keep the rupee linked with sterling was also designed in the interests of the London financial houses, and showed itself in the refusal of the British Treasury to permit the establishment of a mint for gold coinage in India in 1900, and in the consequent sabotaging of the Fowler Committee's recommendation to establish a gold standard in India. The same motive appeared in the recommendations of the Hilton Young Commission, which, while firmly rejecting a sterling exchange standard, nevertheless provided for its introduction by the back door by permitting the proposed Reserve Bank to sell gold or sterling in return for rupees and also allowing it to hold its gold reserves in sterling above a minimum quantity of gold bullion. The back door became the front door in September 1931, the rupee was delinked from gold and firmly linked with sterling, and there it remains today.

PRESENT CURRENCY POSITION

The present position of the Indian currency is as follows : The rupee is unlimited legal tender and is a token coin ; the rupee notes also are unlimited legal tender and are issued by the Reserve Bank of India ; the denominations of the rupee notes are Rs. 5, Rs. 10, Rs. 100, Rs. 1,000, and Rs. 10,000 ; recently one-rupee notes have also been issued, and in large number. The Reserve Bank is under legal obligation to sell rupees in return for sterling and sterling in return for rupees at the rate of 1s. 6d. to the rupee.

The assets of the Issue Department consist of gold coin and bullion, sterling securities, rupee coin and rupee securities of a value not less than the amount of the liabilities of the Issue Department. Of the assets, not less than two-fifths must consist of gold coin and bullion and sterling securities valued at their market rate, and the value of the gold coin and bullion at 8.475 grains of fine gold per rupee must not be less than Rs. 40 crores. The rest of the assets consist of rupee coin, Government of India securities valued at their market rate, and such bills of exchange and promissory notes as are eligible for purchase by the bank. Provision was made that the value of the Government of India securities must not exceed one-fourth of the total assets or Rs. 50 crores, whichever amount was greater; but this provision was later omitted by an ordinance in February 1941 to enable a larger volume of rupee securities to be held in the Issue Department in connection with the repatriation of the sterling debt.

The Reserve Bank is the sole issuer of currency, and though it is constituted as a shareholder's bank, Government has an indirect influence on its management, the Governor of the Bank being appointed by Government after consideration of the recommendations made by the Central Board of the bank, and being liable to be removed from office by Government. It was also sought to give the bank power over the credit mechanism of the country by insisting that all banks with a paid-up capital and reserve of over a half-million rupees should keep with it a deposit of 2 per cent of their sight liabilities and 5 per cent of their time liabilities. It will be seen, therefore, that the primary objective of the Indian currency system as it stands today is the

maintenance of the exchange value of the rupee at 1s. 6d. sterling; and the securing of this objective was entrusted to the Reserve Bank of India, which was given control over Indian currency and credit for this purpose.

EFFECTS OF WORLD WAR II

The war saw the Reserve Bank facing new problems, and at the same time the Indian public had by this time become better educated in currency matters and made things easier for the bank. The initial rush for currency induced by the nervousness consequent on the war was easily met by the Reserve Bank; and as there was no general flight from the rupee, the problem of maintaining its exchange value did not present any difficulties. The silver content of the rupee has been reduced to nearly one-half of its previous figure, and this has practically freed it from any threat to its stability caused by a rise in the price of silver as happened during the last war. The Reserve Bank was also able to follow the policy of the Bank of England and keep the bank rate at the prewar level, which in India was 3 per cent; and when exchange control was imposed, it was left to the Reserve Bank to administer it. There is no doubt that the establishment of a central banking institution in India did help the country in meeting more efficiently than during the last war the currency problems arising from a war economy.

But the major problem resulting from this war could not be so easily tackled. The early utilization of India as a base of supplies, the operations in the Middle East and the subsequent campaigns in the Far East, the conversion of the country into a large scale base for military operations, and the fall in imports due to cessation of trade with enemy countries and wartime quotas on trade with Allied countries—all these led to a considerably higher balance of trade in favour of India and a very much larger and daily growing accumulation of sterling with the Government and as corresponding rupee payments had to be made by the Government in India, the sterling was transferred to the Reserve Bank and the rupee notes issued by it against the same. A rapid increase in the volume of Indian currency followed and was accompanied by a rapid rise in the general level of Indian prices. The position with regard to prices and currency in India since the beginning of the war is as follows:

Volume of notes in circulation; August 1939, Rs. 1,780 millions; November 1942, Rs. 5,353 millions; percentage rise, 200.

Level of prices (Calcutta Index Number July 1914 = 100): August 1939, 100; November 1942, 227; percentage rise, 127.

In addition to this huge rise in the volume of notes in circulation, there was also a fall in the volume of rupee coins held in the Issue Department of the Reserve Bank by Rs. 570 millions, which meant so much addition to the volume of currency in circulation. The price level has been more than doubled, and if it has not risen still further, it is not due to an increase in production or in subscriptions to defence loans, but to a decline in the velocity of circulation; and the danger of a further steep rise in prices is increased by the possibility of a rise in the velocity of circulation which the Reserve Bank may not be able to counteract.

There is no doubt, then, that this war has seen a much larger increase in the volume of currency than took place during the last war; the rise in prices has also been much more sharp and threatens to reach still higher levels on any restoration of

the velocity of circulation of money to prewar standards. The Reserve Bank of India has not been able to prevent this, as public investment in government bonds depends upon political factors which only the British Government can resolve by giving India a truly national government in place of the existing executive composed of its own nominees. The fact remains, therefore, that the problem arising from currency expansion cannot be solved by any change in monetary organization, but turns upon a solution of the Indian political impasse.

THE FUTURE

No discussion of Indian currency can be complete without a reference to the more permanent effects of the war on the future of Indian currency and exchange. This is no doubt that the repatriation of the sterling debt has left the Indian rupee fundamentally stronger than before the war, and the freedom from having always to bother about the effect on foreign obligations whenever considering changes in Indian currency policy is a factor of permanent importance; it gives greater autonomy to the rupee and makes it possible to free it from the apron strings of the sterling and to follow a currency policy situated to the requirements of Indian agriculture, industry, and trade. The mounting volume of sterling assets in the hands of the Reserve Bank is also likely to prove a source of considerable strength to the Indian rupee, particularly in the immediate postwar period, when there may be a temporary unfavourable shifting in India's balance of payments.

It is difficult to say what the position of the rupee is going to be after the war, as much will depend upon the monetary policy of other countries and the international attitude toward gold; but it is certain that India will be in a better position to adjust the rupee to her domestic requirements than she was in the prewar period. And if we assume that the end of the war at least will see the establishment of an Indian Government on Indian soil, the will to evolve a currency policy suited to Indian requirements will also be there, and as the ability to do so will also have been secured as a result of the war, one can confidently look forward at long last to a future rupee that will be independent of British control and will function in the interests of Indian economy, helping in that rapid progress of India's economic regeneration for which we have all been so anxiously waiting.

Sir Purshotamdas Thakurdas, Kt., C.I.E., M.B.E., J.P., is president of the East Indian Cotton Association, director on the Central Board of the Reserve Bank of India, and chairman or director of over fifty financial, commercial and Industrial concerns. He has served on numerous economic commissions and committees. He was a delegate to the Indian Round Table Conferences and the Joint Parliamentary Committee during 1932-33; was chairman of the Panel of Unofficial Advisers to the Government of India in connection with the Indo-British trade negotiations of 1936-38; and was a member of the Council of State (Upper House at Delhi,) 1922-23, and of the Central Legislative Assembly, 1924-30.

Banking in India

By MANILAL B. NANAVATI

ALONG with the development of trade and industry during the last thirty years Indian Banking has also made considerable progress, and with the establishment of the Reserve Bank of India in 1935 it has received further impetus. Yet the structure is incomplete and has created new problems to be dealt with in order to make it sound and useful.

The present banking structure of India may be divided into five distinct parts: indigenous bankers and money lenders, joint-stock banks, foreign exchange banks, co-operative banks, and the Reserve Bank of India.

THE INDIGENOUS BANKER

From very early times India possessed a system of banking suited to her requirements and regulated by the *Dharma Sastras* (codes of ethics) and the *Artha Sastras* (codes of political economy). With time the system grew in usefulness and adapted itself to the country's growing needs. The system started with moneylending, but as early as the fourth century B.C. created instruments of credit to the finance trade between different parts of the country "Hundies," or internal bills of exchange, developed at a later period, and evidence of their existence can be traced back to the twelfth century. Besides financing trade and industry, the bankers became financiers to states, managing their treasuries, guaranteeing the collection of revenue, and even financing their wars and expeditions. Their methods of business were efficient and conformed to the highest canons of commercial morality. The indigenous bankers also carried on trade with foreign countries in the Indian and Pacific Oceans.

This state of things continued until about the time the Mogul Empire broke down in the eighteenth century, when in the prevailing political uncertainty and general confusion the indigenous banker suffered. Systematic efforts were made in England after the Napoleonic Wars to complete a chain of Empire banks and in course of time a number of British banks came to be established in India to finance foreign trade. The East India Company, a trading concern with agency houses created by its civil servants and military officers, which assumed increasing control over Indian trade, started its own system of banking.

As a combined result of the operations of the East India Company, the British agency houses, and the British-sponsored foreign exchange banks, the indigenous banker steadily lost his former pre-eminent position in financing the trade and other activities of the country. The growing impact of the activities of modern Indian trading banks was further limiting his sphere of operations. All the same, a vast field was still left to him in the interior of the country as a moneylender to the agriculturists, the artisans, and small tradesmen, and even to small industries and in the movement of crops. He also continues to finance the coastal trade of the ports carried on in native crafts with indigenous insurance schemes. Attempts have been made to bring him within the orbit of the Reserve Bank, but so far without success. He prefers to follow his old methods of business and, in particular, is not prepared to publish his accounts or to shed his non-banking business. On the other hand, he is slowly transferring his capital to industry. One would not, however, be

surprised if, in course of time, the indigenous banker took to modern banking on a large scale.

The disappearance of the indigenous banker from the field of foreign trade of the country coincided with the decline of Indian control of foreign trade and Indian shipping and marine insurance.

JOINT-STOCK BANKS

Joint-stock banks may be divided into three groups: (a) the Imperial Bank of India; (b) joint-stock banks, such as Indian scheduled banks (analogous to member banks in the United States) and nonscheduled banks; and (c) foreign exchange banks.

The Imperial Bank of India is an Indian bank organized under a special act. It is the largest bank, with over four hundred branches and sub-agencies, besides several pay offices working throughout the country. It also has an office in London. Although Indian in organization, it is largely managed by the English, having more than 325 British officers and 50 per cent British element in the central and local boards of directors.

This bank was formed by the amalgamation in 1921 of the three Presidency banks of Bengal, Bombay, and Madras, started by the East India Company in 1806, 1841, and 1843, to maintain its credit and to help the mercantile community. The banks had a part of the share capital subscribed by the East India Company and had a right to issue notes, to open branches, and to deal in inland exchanges. In 1862 the banks were deprived of the power of note issue, which was assumed by the Government of India direct, but were compensated with the free use of government balances. They, however, continued to discharge the old functions of a government banker. In 1921 the Imperial Bank was given special subsidies to open one hundred branches in the country within five years. By virtue of its privileges and position, the Imperial Bank, although a commercial bank, served as the equivalent of a central bank in matters of credit. As such, the bank was the subject of much criticism on the part of other Indian banks, with which it competed in ordinary business but to which it was unwilling to extend accommodation in times of difficulty.

With the establishment of the Reserve Bank in 1935, the Imperial Bank has been deprived of the use of government funds, but has been appointed the agent of the Reserve Bank for the operation of government business in places where the latter has no offices of its own, and as such enjoys several valuable facilities, including the use of currency chests, usually denied to a joint-stock bank. It also continues to receive a substantial subsidy from the Reserve Bank of India for maintaining the number of offices it had when the Reserve Bank came into existence. The bank was, however, permitted to enter into foreign exchange business, from which it had been previously excluded. It has since opened an office in London and is doing a comparatively small amount of exchange transactions. To quote the words of an eminent exchange banker:

The bank has a well-established London office, and with its large resources and wide coverage in India it is in a position to compete favourably with any of the foreign exchange banks. One must recognize the importance of the Imperial Bank as an increasingly strong competitive factor both in interior and exterior banking in India.

At the end of June 1942 the bank had deposits amounting to Rs. 133 crores, or 23 per cent of the total deposits received by all scheduled banks.

Next in the group of modern banks are the Indian joint-stock banks proper. Before 1860, when legislation was enacted for the first time permitting the formation of joint-stock banks on a limited-liability basis, nearly thirty banks were organized by the British agency houses, but most of them had to be liquidated on account of speculation and mismanagement. At the end of 1900 there were only nine banks with capital and reserves of over Rs. 5 lakhs, the total capital and reserves of which amounted to Rs. $1\frac{1}{2}$ crores, and the total deposits to Rs. 8 crores. After the turn of the century the Swadeshi or national movement gave considerable impetus to the establishment of new Indian banks, and most of the prominent Indian banks now existing owe their origin to this period. A banking crisis occurred in 1913-14 which wiped away a large number of institutions, and as stated by a writer on modern banking in India.

was preceded and in no small measure caused by the prolonged Anglo-Indian newspaper broadsides to which the Indian joint-stock banks were exposed for two or three years previously..... [and in this] continuous vilification of Indian banks the part of the European banks.....was no mean factor.¹

The Government of India did little to save the banks which found themselves in difficulty during this crisis. Their attitude was, however, different in 1923 when a European bank was in trouble. Under instructions from the Governor-General in Council, the Imperial Bank undertook immediately to pay 50 per cent of the amount at credit to depositors, most of whom were government officers, and the bank was guaranteed against loss. This attitude of the Government brought strong public resentment and led to a vote of censure in the Legislative Assembly. The movement to extend modern banking has, however, made steady if slow progress, and the number of banks stood at 868 at the end of 1941.

The joint-stock banks may be divided into scheduled banks (or, to use the American term, member banks) and non-scheduled banks.

Excluding foreign exchange banks, the number of Indian scheduled banks is forty-four. They have a minimum capital and reserve of Rs. 5 lakhs as required by the Reserve Bank Act. They have received total deposits of Rs. 129 crores and have 953 branches. Their total capital and reserves amount to Rs. 13,69 crores. There is a keen desire among nonscheduled banks to achieve the status of a scheduled bank, as certain prestige naturally attaches to that position. In their working they usually adopt British banking practices.

Nonscheduled banks may be divided into two groups : those having a capital of Rs. 50,000, as required by the revised Companies Act, and less than Rs. 5 lakhs, and those with a capital below Rs. 50,000 or those banks which existed before the law regarding the minimum requirements of capital was amended in 1934 and were allowed to continue their business. In the former group there are 268 banks with total capital and reserves of Rs. 6 crores ; while the latter group, including 656 petty banks of which only 332 supply returns, has capital and reserves totaling Rs. 2.7 crores. The deposits of the two classes together are Rs. 27 crores.

¹ S. K. Muranjan, *Modern Banking in India* (Bombay : New Book Co., 1940), pp. 325, 332.

There are, in addition, about one thousand loan offices and chit funds outside the pale of the banking system proper but doing an appreciable amount of business ; some of these call themselves banks, although they do not accept deposits withdrawable by cheques.

FOREIGN EXCHANGE BANKS

There are seventeen foreign exchange banks operating in India, in addition to three Japanese banks now under the Custodian of Enemy Properties. Of these, eight are British (of which two are touring agency offices), two American (with one touring agency office), three Chinese, two Dutch, one French, and one Spanish. Of the eight British banks, one is a British joint-stock bank, one of England's Big Five, and has entered the field of foreign exchange and the internal trade of India. The total amount of deposits received by these banks was Rs. 129 crores out of aggregate deposits of Rs. 385 crores received by all the scheduled banks, including the Imperial Bank (the major portion of them being held by British banks). Of these twenty banks (including three Japanese banks) five have 25 per cent or more of their deposits in India and may therefore be said to be doing a considerable proportion of their business in India while the remaining fifteen have less than 25 per cent of their deposits in India and have therefore the major portion of their business abroad. The amount of local deposits received by the British banks is so much that it is hardly necessary for them to tap the London market. In all, the exchange banks have ninety-nine offices throughout India. All the foreign exchange banks have offices in the port towns, their operations being confined in the early stages to financing foreign trade, but the British banks have opened offices in the interior in some of the important trade centres and have entered into competition with Indian banks. While on one side they have been extremely careful to preserve their own position and status, they have never hesitated to compete with local banks for local business. These banks are all officered by their own nationals and employ Indians in the lower ranks only.

The foreign exchange banks are a closely knit organization with special associations to regulate their business practices. The British banks have, in addition, in London, an association of banks working in the East.

There are no purely Indian exchange banks operating in India. During the last fifteen years two such banks were started, one by a leading business house of Bombay and another by a leading Indian bank, but both of them had to be closed after a short existence. However, some of the leading Indian joint-stock banks are entering into this business through their agents in foreign countries.

An important question discussed in the Banking Enquiry Committee's Report (1929) related to the Indianization of banking. A number of complaints were made by the Indian interests that the most important section of banking in India, namely, foreign exchange banking, was controlled by nonnationals and that the interests of the Indians were not properly safeguarded. A unanimous complaint was registered by all Indian commercial bodies about the discrimination practiced by these banks against Indian traders with respect to the granting of necessary facilities and finance and against Indian insurance companies as regards the acceptance of their policies. The report testified to the existence of a strong feeling among most Indians that foreign banks did discriminate against them. It was generally agreed by the committee that

this business should be controlled, but a majority was of the opinion that when the Reserve Bank came into existence it should be empowered to issue licenses to newcomers which the existing banks should automatically get. A strong minority, however, was of the opinion that this recommendation would not improve matters because the existing banks were so firmly entrenched that there was hardly any chance for a new bank to get a footing. Therefore, it was suggested that state-aided exchange banks should be started. Minor recommendations related to the employment of Indian personnel in these banks, the submission of statistics of their business in India, and so forth. Nothing, however, has been done to give effect to these suggestions. As was pointed out by an eminent British authority who appeared before the Banking Enquiry Committee, these banks have great influence with the British Government in England which they have always used for their advancement. It is therefore not possible that the present Government would ever agree to measures that would affect the status or the business of these banks.

The other course open under the circumstances is to induce the Reserve Bank freely to purchase, sell, and rediscount sterling bills of exchange to be made in India with scheduled banks, as empowered under section 17 (3) (b) of its act. It has an office in London which can be easily strengthened, where Indian personnel can get training in this business. The Reserve Bank is empowered to take bills from scheduled banks only, and few of these banks who have entered this business would be glad to offer their bills to the Reserve Bank. It would then be easy for Indian banks to develop exchange banking for the benefit of their Indian clients who trade with foreign countries.

CO-OPERATIVE BANKS

Over and above the commercial banking institutions described above there is an extensive system of rural and urban banking organized under a special Co-operative Societies Act. The act was introduced in 1904 and is in operation throughout British India, with similar acts in many Indian states.

At the end of June 1942 there were 124,000 rural and 17,000 urban societies, with 1,067 central (district) banks and unions to finance them. At the top of the co-operative structure are ten provincial banks working as balancing institutions, receiving the surplus funds from the movement and deposits from the public, and granting loans to district banks and unions and, in rare cases, to primary societies in their jurisdiction. The total working capital of the movement is Rs. 109 crores, while the deposits received by the larger societies and banks are about Rs. 38 crores. Most of the provincial banks are affiliated with the Reserve Bank and are eligible for discount facilities or loans.

The primary rural societies are rather weak and are not able to absorb the funds the movement has received; consequently there is a tendency among the co-operative banks to enter into commercial banking.

Side by side with the co-operative banks are 252 central and primary land-mortgage banks, with a total working capital of only Rs. 7 crores, organized for making long-term loans to agriculture, and raising funds by the flotation of debentures which are guaranteed as regards both capital and interest by the provincial governments. Apart from the insignificant dimensions of the long-term credit made available, a very small percentage of the loans are given for the development of agriculture.

THE RESERVE BANK OF INDIA

The crown of the banking system of India is the Reserve Bank, started in 1935, with six offices in India, one in Burma (now closed), and one in London. As the preamble to the act provides, the bank was constituted to regulate the issue of bank notes and the keeping of bank reserves with a view to securing monetary stability in British India and generally to operate the currency and the credit system of the country to its advantage; and to this end the bank is entrusted with powers usually given to central banks. The bank has the sole right to hold the cash balances of the larger commercial banks scheduled under the act; it is obliged to buy and sell sterling at statutory rates and thus maintain the external value of the monetary unit; and it has a right to transact government business in India, on certain terms, with the Central and provincial governments.

Besides the essential central banking functions mentioned above, the Reserve Bank is authorized to transact other business of the nature usually performed by central banks, such as the discounting of bills and the making of loans and advances to schedule banks; to arrange remittances for the country through its own offices or agencies and government treasuries; to arrange the clearing of cheques for banks; and to collect and publish banking and financial statistics. It also maintains, as required by the act, an Agricultural Credit Department.

to study all questions of agricultural credit and be available for consultation by governments and the provincial co-operative banks and other banking organisations, to co-ordinate the operations of the bank in connection with agricultural credit and its relations with provincial co-operative banks and other banks or organisations engaged in the business of agricultural credit.

Pursuant to these injunctions the Reserve Bank has submitted two reports reviewing the whole position of agricultural finance in India and the position of the banks and the indigenous bankers. The reports have laid down a certain policy for an approach to the subject mentioned above.

- In 1938 the Reserve Bank was called upon to deal with a banking crisis in Madras Presidency. The crisis was localized, although the failure of a large commercial bank could not be prevented. Thenceforth the Reserve Bank decided to come into closer contract with both scheduled and nonscheduled banks so that in case of emergency help might be rendered without delay.

The real test came when World War II broke out. There was much nervousness in the money market and a certain amount of withdrawal of deposits from the banks took place. But confidence was soon restored and the stability of the monetary structure has been properly maintained. Unlike England, the Reserve Bank did not find it necessary to raise the bank rate, which has been kept unchanged at 3 per cent since November 28, 1935.

The period since the inauguration of the Reserve Bank has been one of considerable progress in banking. The number of scheduled banks has increased from 49 at the end of 1935 to 62 at the end of June 1942, their total demand and time liabilities increasing meanwhile from Rs. 222.60 crores to Rs. 364.46 crores. Branch banking has also shown a striking development: the number of branches has nearly doubled, from 723 to 1,405. Financial activity has made appreciable progress, the value of cheques cleared through the more important clearinghouses having increased from

Rs. 18.43 crores in the financial year 1935-36 to Rs. 28.84 crores in 1941-42. The number of bank failures is being progressively reduced and complaints of discriminatory treatment of Indian banks in difficulties have disappeared. The provision of cheap inland remittance facilities has reduced disparities in money rates prevailing in different parts of the country.

A discount market is one of the essential elements in a money market and the medium of a central bank's credit policy. In India the bills discounted amounted to a bare 3 per cent or less of the loans and advances made by the scheduled banks. The Central Banking Enquiry Committee suggested several measures for the development of a bill market in India, including the reduction of the stamp duty, the establishment of warehouses, the standardization of the "Hundi," the creation of bank acceptances, the formation of discount houses, the linking up of the indigenous bankers with the Reserve Bank, and so forth. The stamp duty on bill has since been reduced, but without any appreciable effect in the way of stimulating the bills habit since the banks generally prefer to make loans against good in possession, and efforts to persuade them to change their mode of finance have been of little avail. The creation of a proper bill market in India, therefore, remains a main desideratum. In the meanwhile, however, government treasury bills are becoming more popular with business houses, and the facilities offered by the Reserve Bank for their rediscount or purchase through scheduled banks should help the creation of a bill market.

WAR AND INDIAN BANKING

The position of the banks has considerably improved since the beginning of World War II. They have been able to maintain their profits in spite of the fact that their expenses have gone up. But their internal conditions have undergone great change. The deposits of the scheduled banks, which form the most important section of the banking system, have increased from Rs. 248 crores in 1939-40 to Rs. 447 crores at the end of November 1942. In this, the time deposits have remained stationary at about Rs. 107 crores, while marked increase has taken place in the current accounts. This position has not led to an increase in loans and discounts which have, as a matter of fact, gone down from Rs. 130 crores to Rs. 87 crores during the same period. The investments, however, had increased from Rs. 86.70 crores to Rs. 125 crores at the end of 1941. This has naturally left the banks with large cash balances which have increased from Rs. 7 crores in 1939-40 to Rs. 13.89 crores at the present time; while their balances with the Reserve Bank have improved from Rs. 19.44 crores to Rs. 59.21 crores just at present, which is far above their statutory requirements.

The war has, however, considerably changed the monetary condition of the country. Apart from the war activities of the Government of India, the British Government has placed orders for nearly Rs. 425 crores. These have stimulated industrial output considerably. All the existing factories are working at full strength and are making large profits, and many new but small ones have been established all over the country. A large export trade, accompanied by an equally large export of gold during the first two years of the war, has put the Reserve Bank in possession of an increasing amount of sterling, which has increased from Rs. 91 crores in 1939-40 to Rs. 446 crores at the present time. The amount is left after the repatriation of £184,000,000 (or Rs. 240 crores) of the Government of India's sterling loans. The remaining portion, nearly £75,000,000, will be repatriated shortly. By these sterling

payments the Government of India has been paid in rupees. This has caused a tremendous issue of currency, which jumped from Rs. 227 crores in 1939-40 to Rs. 551.94 crores, or a rise of 205 per cent. This, as well as some other factors, has increased the rise in prices. The index number of general prices has risen from 115 to 227, or nearly 100 per cent, during the same period. In the United Kingdom similar figures are 80 per cent and 50 per cent, and in the United States 66 per cent and 15 per cent respectively. If the war continues for a year or two, conditions will go from bad to worse and cause considerable distress among the middle classes with fixed salaries or incomes. This could have been avoided if the Government had planned the industrial program will, as was done in Canada and Australia: it would have enabled the country to import a large amount of machinery and other requirements, and would have strengthened the country's war effort. The Government could have stopped the export of gold at a certain stage.

During the three years of war the Government has been able to get nearly Rs. 90 crores in new loans while it has lost nearly Rs. 50 crores by withdrawal of deposits from the postal savings banks. This is in addition to the absorption by the public of a portion of the counterparts of the repatriated sterling loans. Part of these loans are with the Reserve Bank, another part cancelled, and still another remaining on hand with the Government of India waiting to be absorbed. Consequently their short-term debt has gone up from Rs. 46.30 crores to Rs. 191 crores, subscribed mostly by the banks and the Reserve Bank. There is considerable reluctance on the part of the public to subscribe to government loans, owing partly to the political deadlock and partly to the uncertainties of war. The surplus funds are being invested in gold and silver, prices of which are running very high, and partly in commodity hoardings, confusing an already serious food situation.

If the political situation were eased and popular ministries were working all over the country, conditions would have considerably changed and measures would have been taken long ago for control of prices, regulation of exports of foodstuffs, their proper distribution, and a more effective appeal to the public to subscribe to war loans. At the same time, the expansion of the currency could be avoided to a great extent if arrangements were made to make the payment for British purchases in India by means of rupee loans raised in India instead of by paying sterling to India, as now. Such a transaction would be independent of the Reserve Bank, which would not then have to issue more currency notes. This would considerably reduce the inflation which has been admitted and which the Reserve Bank has been unable to remedy, as was indicated by the bank in its latest annual report:

The remedy for any inflationary tendency that the expansion of currency might have must take into consideration the causes which are producing the increased demand for currency and these in present circumstances are not amenable to any action which the Reserve Bank can itself take.

BANKING LEGISLATION

Unlike most European countries and the United States, there is no separate legislation for banks in India. They are governed by the general law relating to joint-stock companies as embodied in the Indian Companies Act in regard to various matters such as incorporation, constitution, management, audit, liquidation, and the publication of balance sheets. The Indian Companies (Amendment) Act, 1936, which came as a result of the recommendations of the Banking Enquiry Committee of 1931, for the first time defined a banking company and made certain other important

provisions, such as the prohibition of non-banking business and of the employment of managing agents other than banks, the provision for a minimum working capital of Rs. 50,000 before the commencement of business, for the building up of reserve funds and the maintenance of minimum cash reserves by nonscheduled, banks, restrictions on the nature of subsidiary companies, and the provision for a moratorium by the court under certain circumstances.

The amending act of 1936, however, was only in the nature of stopgap legislation and the general public and the press continued to agitate for more comprehensive legislation on banking. Certain other recommendations such as the licensing of banks, the regulation of foreign banks, and the revision of the procedure for liquidation still remained to be implemented.

Although the question of banking legislation began to engage the attention of the Reserve Bank soon after its inception and draft proposals have been made and circulated for opinion, the whole question is naturally held in abeyance on account of the war.

DEFECTS IN BANKING STRUCTURE

The banking structure of India is incomplete in several respects. With the exception of one or two small concerns there are no important investment trusts working as promotion houses or assisting in the supply of long-term finance to industries or public utilities. There are no independent trust companies except the small trustee departments of some of the big banks. Outside the government postal savings banks (with 230 head offices and 11,653 branches, with 4,000,000 depositors out of a total population of 400,000,000 and with a total deposit of Rs. 90 crores inclusive of cash certificates, the maximum figure reached before the war being Rs. 141.51 crores) there are no specially organized savings banks collecting deposits from the middle and lower strata of society. Out of 2,300 towns in British India with a population of 5,000 and above, only 1,040 have some sort of bank, either joint-stock or co-operative. Some of these smaller towns and almost all the villages have no bank of any kind where people can safely deposit their savings which have, therefore, been invested in bullion, mainly gold and silver ornaments, and this has earned for India the unenviable reputation of being considered a sink for precious metals. Owing to the lack of banking facilities and the general poverty of the people, the average deposits in all the banks are only Rs. 17 per head and total deposits are Rs. 665 crores. It is estimated that the new capital available for fresh investments every year is about Rs. 200 crores. By very careful husbanding of savings a considerable amount could be added for use in the development of the country, of which it is badly in need.

India needs a progressive and careful banking policy for bringing into profitable employment the innumerable small hoards of her large population, for the building up of traditions of sound finance, all with a view to assisting in a process of sound national economic development, and for the Indianization of parts of the banking structure at present removed from Indian control.

Sir Manilal B. Nanavati, Kt., LL.B., was engaged in the Baroda State service from 1904 to 1935 except for two years when he was taking up advanced studies in finance and banking at the University of Pennsylvania, having been sent to the United States for that purpose by the Baroda government. In 1936 he was appointed deputy governor of the Reserve Bank of India for five years. He is author of several publications, the most important of which are government reports.

Agricultural Finance

By V. RAMADAS PANTULU

AGRICULTURAL finance or rural credit, that is, credit granted for the promotion of any line of agriculture, is a very vital socioeconomic problem of India. The central problem of our present-day rural economy may be summed up thus : The chronic poverty and the crushing burden of indebtedness of the Indian ryot (cultivator) lead to a low agricultural production, which in its turn aggravates the poverty and indebtedness of the peasantry. The appalling poverty of the population is the outstanding feature of Indian rural economy. Perhaps the most striking testimony to this fact came from the Simon Commission—an all white commission, which could not be suspected of having any Indian bias. The Commission observed :

The low standard of living to which the mass of India's population attain is one of the first things that strike a Western visitor. Wants are few, diet is simply, climate is usually kind, and a deep-rooted tradition tends to make the countrymen content with things as they are. But the depth of the poverty, the pervading presence of which cannot escape notice, is not so easily realized.¹

It is hardly necessary to point out that the economic condition of the agriculturist has an intimate bearing on the problem of rural credit. Effort at "successfully constructing and maintaining the machinery of rural finance" has so far baffled the state and the public alike in India, mainly on account of the phenomenal poverty and the extreme economic debility of the agriculturist. It is in this setting that the problem of agricultural finance in India must be studied.

FINANCIAL REQUIREMENTS OF THE AGRICULTURIST

The magnitude of the problem of rural credit can be easily realized from the fact that the bulk of the national wealth of India is still raised from land in 700,000 villages where over 80 per cent of the population live and pursue their hereditary occupation of husbandry. There are, however, no reliable data from which the financial requirements of the agriculturist can be ascertained. Attempts have, no doubt, been made to form some idea of such requirements on the basis of the cost of production in relation to the total value of the gross agricultural produce annually raised, or the average cost of cultivation per unit of production of the cropped area of agricultural land, or the volume of the floating debt of the agriculturist which is annually borrowed and repaid and is supposed to represent his yearly financial requirements for the pursuit of his occupation. These estimates are based on assumptions and inferences which do not bear scrutiny, and therefore do not help us to evolve any definite plan of action. The general impression I have formed on a study of all the available material is that the agriculturist class requires annually at least Rs. 500 crores² (1,500 million U. S. dollars) for the pursuit of agricultural industry, of which Rs. 400 crores (1,200 million U. S. dollars) may be taken to represent the financial requirements to raise and market its crops, and Rs. 100 crores (300 million U. S. dollars) is needed for improvement of land or discharge of prior usurious debts which may be beneficially liquidated by raising loans on more economic terms.

1 Vol. I of the Report, p. 384.

2 One crore = ten millions. The present rate of exchange is 3.33 rupees per dollar.

SOURCES OF AGRICULTURAL FINANCE

The existing credit agencies may be grouped under the following four broad heads:

1. *Commercial banks* :—No data are available to ascertain the financial accommodation provided by the several kinds of commercial banks ; but as stated by the Indian Central Banking Enquiry Committee, joint stock banks played little direct part, and the Imperial Bank much less, in the supply of credit to the agriculturist.

2. *Co-operative banks* (rural credit societies and their central societies).—Co-operative banks, including co-operative land mortgage banks, institute a group of organized financing institutions by themselves, incorporated not under the Company Law of the land but under the Co-operative Societies Acts in force in the several provinces and states. The extent of rural credit provided by them is ascertainable on the basis of their loan operations, to which reference will be made later. The working Capital of the co-operative institutions of all types for the whole of India was over Rs. 109 crores in the year 1940-41, of which about 31 crores represents the aggregate working capital of the rural credit societies which finance agriculture exclusively. These societies have not so far been able to provide any appreciable amount of rural credit, and merely touched the fringe of the problem of agricultural finance even after the lapse of four decades since their introduction.

3. *The Government*.—The central, provincial, and state governments help individual farmers with State Loans for specific purposes and in certain emergencies, besides assisting co-operative organizations with financial accommodation. This form of financial help is, no doubt, beneficial to the ryot as far as it goes, and helps him out of his financial embarrassment in certain situations ; but the Government as a credit agency is a wholly negligible factor in agricultural finance.¹

4. *Moneylenders*.—Then comes the moneylender. Indigenous bankers, shroffs Multanis, chetties, landowners, big cultivators, merchants, traders, government servants, and even persons, who pursue the so called learned professions, like law and medicine, and do petty moneylending business with their savings, are all grouped under this head. But professional moneylenders—soucars or mahajans as they are generally called—are a well-recognized class by themselves. Having estimated the actual financial requirements of the agriculturist at about Rs. 500 crores, and having regard to the almost negligible proportion of those requirements supplied by the other three credit agencies mentioned above, it follows that the moneylenders of various kinds constitute the main source from which rural credit is derived. But it is somewhat difficult to estimate with any pretense to accuracy the amount of capital and credit provided by the moneylender for agricultural production proper.

OPERATIONS OF MONEYLENDERS AND THEIR EFFECT ON RURAL ECONOMY

Almost all those who have investigated the question agree that in rural India the moneylender, generally speaking, besides providing credit for agricultural operation, carries on trade in agricultural commodities and usually runs a village shop. He finances the agriculturist for his domestic needs, that is, for consumption and for expenditure on ceremonies, provides working capital for agricultural operations, and

¹ See pages 180 and 186 of the Report of the Indian Central Banking Enquiry Committee.

finds funds for the movement and marketing of crops. He thus establishes contacts with the agriculturist practically over the entire range of the latter's life. It is therefore not surprising that administrators and economists alike find it difficult to disentangle from the mass of these multifarious transactions what we may technically describe as agricultural finance or rural credit. Estimates of rural indebtedness are similarly vitiated by the fact that the moneylender often takes a share of the produce raised from land in return for the various services rendered by him to the borrower. Sometimes accommodation is given in kind, and repayments are also made in kind. The ascertainment of the relative proportion in which the cultivator and the moneylender enjoy the produce in any given year as a net result of these operations, in addition to cash transactions in the shape of loans and repayments, is a task which is almost impossible to accomplish.

In regard to the effect of the moneylender's business methods on the rural economy, the one outstanding conclusion arrived at by those who have probed into this question, and which can be safely deduced from the Blue Books and reports bearing on the subject, is that the agriculturist is not a free agent in his dealings with the moneylender, who exploits his dominant position to the detriment of the borrower. How far this broad conclusion in regard to the business methods of the moneylender, expressed in such general terms, applies in actual practice to any given transaction, depends on a variety of circumstances and conditions, and, by its very nature, cannot be universally true. The borrower's economic stamina, state of indebtedness, and reputation for honesty and punctuality in the discharge of obligations, on the one hand, and the lender's integrity, social status, and standing in the local business community, on the other hand, are certainly factors on which the bargaining power of the former and the character of the deal of the latter obviously depend.

The central, provincial, and state governments have in the past enacted several legislative measures to check the questionable practices of moneylenders,¹ to limit the maximum rates of interest chargeable on loans, and to control and regulate moneylending in general. Latterly, measures for relief of indebtedness² by devices like conciliation and scaling down of accumulated past debt were enacted by provincial and state governments. Though it is difficult to assess the effects of these measures with any degree of certainty, my own impression is that on the whole they have had and will continue to have beneficial effects on our rural economy, and that the action taken by the state is on right lines; but there are many who feel that acts to control and regulate moneylending have largely failed of their purpose, as moneylenders can and do still evade them and conceal the true character of their transactions by devices like collecting advance interest and manipulating accounts. It is also said that the recent provincial debt relief measures resulted in drying up some sources of even productive credit, without materially improving the economic position of the agriculturist.

The problem of rural debt has somehow come to be closely associated with moneylending in India. It has indeed eclipsed many other vital problems of our rural economy. But in my opinion to say that our rural debt is the result of the operations of the moneylenders is far from correct. the average agriculturist

1 For a description of the questionable practices of the moneylender, see paragraph 11, page 77 of the Report of the Indian Central Banking Enquiry Committee.

2 For an account of these measures, see the monograph on provincial debt legislation in relation to rural credit published by the Federation of Indian Chambers of Commerce.

borrows not because he *can*, but because he *must*; in other words, his chronic poverty is the main cause of indebtedness, though poverty and indebtedness act and react on each other, and each tends to aggravate the other. So the reasons for the origin and the growth of rural indebtedness must be primarily sought in the causes which contribute to the chronic poverty of the Indian peasant, which are many and complex. Similarly, remedies for indebtedness must be found in measures for increasing the income and purchasing power of the agriculturist, improving his standard of living, and bringing about a change in his outlook on life.

The Indian Central Banking Enquiry Committee estimated the total rural debt of India at about Rs. 900 crores (2,700 million U. S. dollars). in 1931. It may now be put roughly at Rs. 1,000 crores (3,000 million U. S. dollars). It is, however, well to remember one fact in relation to these estimates of rural indebtedness. All of it does not represent standing debt. About half of it is floating debt, borrowed and repaid each year, which, far from being an evil, is an economic benefit. It corresponds to productive credit given to the industrialist and repaid with the fruits of the industry itself. The real source of anxiety is the increase in the volume of unproductive debt which operates as a dead weight on the agriculturist.

Whatever may be the causes of indebtedness, there is no doubt that bonds of debt shackle agriculture, make the agriculturist discontented and depressed, and paralyze his energy and will. Economic production in such conditions is a forlorn hope. The most effective remedy for this state of affairs lies in evolving a sound system of rural finance in which the antisocial features and tendencies which characterize moneylending are eliminated. It will go a long way to arrest the growth of unproductive rural debt and rehabilitate the agricultural industry by diverting capital and credit advanced to the agriculturist into productive channels.

THE CO-OPERATIVE CREDIT MOVEMENT

We are here concerned not with the co-operative movement in general, nor even with the co-operative credit movement as a whole, but only with the rural co-operative credit movement which supplies capital and credit to the agriculturist. The movement was inaugurated, as is well known, by the Government of India Act X of 1904, and has undergone many structural and functional changes in the last thirty-eight years. The present structure of the co-operative credit organization may be generally described as federal. The village society constitutes the foundation stone of the rural credit structure. In order to strengthen these societies, they are usually federated into central financing institutions known as central banks and banking unions. These central financing institutions, in their turn, are in most provinces federated into what are called apex or provincial co-operative banks. These three grades of societies now form integral parts of the credit structure, and their operations are interrelated. The primary societies derive their capital mainly from the central banks, and have little local resources of their own. The central banks, on the other hand, command, where the movement has vitality, fairly large resources of their own; and the apex or provincial banks are intended to be, and as a matter of fact are, financing agencies and balancing centers to the limited extent that the central banks require finance to supplement their own resources.

In the course of the evolution of the movement it has been found by experience that the organization composed of village credit societies, central banks, and provincial

banks can supply only what are generally called the short-term and intermediate credit needs of the agriculturist. These institutions work mainly on borrowed capital, consisting of deposits for short periods, and are incompetent to advance long-term loans without violating the fundamentals of banking business. Co-operative opinion has therefore crystallized round the view that institutions of a different type, called the co-operative land mortgage banks, which raise long-term funds by issue of debentures, are required for the purpose. Their development was helped by state aid in the form of guarantee of principal and interest of debentures issued by the banks as well as loans and subsidies in the initial stages. But the evolution of these land mortgage banks has not followed the same course in all the provinces as the ordinary credit societies and their central societies did. In the British provinces of Madras and Bombay and the Indian State of Mysore, separate central institutions known as provincial or apex land mortgage banks were set up, to which primary land mortgage banks which exclusively dispense long-term mortgage credit are affiliated. In Bengal and Central Provinces, on the other hand, the provincial co-operative banks have what are called long-term credit sections, the operations of which are separated from the normal credit operations. There the primary land mortgage banks derive their finance from the long-term credit departments of the provincial co-operative banks.

The characteristics of these three kinds of credit may be thus stated : Short-term credit and intermediate credit are intended to meet current outlay and to facilitate production. Long-term credit is intended to provide fixed capital to be invested permanently or for long periods, and is required for the repayment of past debts, purchase of land, acquisition of costly equipment, and consolidation and improvement of holdings.¹ In order to ensure that credit dispensed through these institutions is utilized for productive purposes, returns are prescribed to ascertain the purposes of the loans. But it is a notorious fact that these returns are more or less stereotyped and have little relation to the real purposes of the loans, so they afford no reliable guidance to us in ascertaining what portion of the credit dispensed by the co-operative organizations is utilized for unproductive purposes, and what portion is utilized for productive purposes.

LOAN OPERATIONS OF THESE INSTITUTIONS

The aggregate working capital of agricultural societies was Rs. 30.5 crores in the year 1940-41. There are no separate figures for the working capital of the agricultural *credit* societies, but the bulk of this working capital may be taken to be that of the rural credit societies, for the other types of agricultural societies operate with very small working capital. About 51 per cent of this amount is derived from loans from the central and provincial banks. At the end of 1940-41 the amount of loans outstanding against the members of these societies was Rs. 22.5 crores. The fresh finance furnished by these societies varies from year to year, but has been considerably reduced since the commencement of the economic depression. It stood at Rs. 12.31 crores in 1928-29, had been reduced to Rs. 6.7 crores by 1939-40, and increased to Rs. 7.52 crores in 1940-41.

These figures however, do not help us to form a correct idea of the actual financial position of these societies. A very large percentage of the outstanding loans are overdue for a number of years, and some of them are considered bad or doubtful debts. The freezing of the assets of the primary societies has silted up the channels

¹ See page 68, Report of the Indian Central Banking Enquiry Committee, 1931.

through which credit is intended to flow to the agriculturist. In those provinces where the movement has vitality, while the central and provincial reservoirs of funds are overflowing with surplus money, the conduits through which it ought to flow to the agriculturist have become largely blocked up. Another result of this unfortunate development is that the assets of the central and provincial banks whose worth and fluidity ultimately depend on the soundness of loans advanced to the members of village societies, have themselves become frozen. The position has been steadily deteriorating in some of the provinces in India since the commencement of the economic depression in 1928-29. In such provinces even the central and provincial reservoirs of funds have dried up. One of the most pronounced defects of the movements is inability of village societies to command any resources of their own worth mentioning, either in the shape of members' savings or local deposits. When the central and provincial banks have been unable to finance the village societies, the latter have practically ceased to work.

The position of the land mortgage banks in regard to security and the fluidity of the loans outstanding is decidedly better. The proportion of overdues is comparatively small, and the security behind the loans is simple. In the same year, that is, 1940-41, the loans outstanding against the members of primary land mortgage banks in the provinces and states for which figures are available amounted to a little over Rs. 350 lakhs.¹ The fresh loans issued during that year amounted to about Rs. 60 lakhs. The bulk of the outstanding loans have been advanced in Madras, where loans outstanding against members of primary banks account for nearly Rs. 247 lakhs out of the Rs. 350 lakhs for the whole of India. Next come in order Bombay with Rs. 30.69 lakhs, Cochin with Rs. 16.66 lakhs, Central Provinces with Rs. 13.99 lakhs, Mysore with Rs. 13.77 lakhs, Baroda with Rs. 6.83 lakhs, and Bengal with Rs. 6.77 lakhs. Outstanding loans in other areas are negligible.

In the Punjab, which was the first province to start these banks, they are now practically closed down. It must be stated that so far these banks have been mostly concerned with loans for the discharge of prior debts, and have paid very little attention to credit for the improvement of land and agriculture. This is a matter to be regretted. The Reserve Bank of India has rightly pointed out that ultimately, the improvement of agriculture, increase in its profitability and in the yield and earnings from land, with a consequent rise in the income and standard of living of the agriculturist, is the essential objective of the sort of long-term loans for which land mortgage banks have been brought into existence.

EFFECT OF CO-OPERATIVE CREDIT MOVEMENT ON AGRICULTURAL FINANCE

It is somewhat difficult to assess accurately the achievements of the rural co-operative credit movement. Generally speaking, the claims of the co-operative movement in the scheme of agricultural finance of the country as a whole, rest more on its future potentialities than on its past achievements, as the figures quoted above show; but to the small extent that productive credit was dispensed by these societies, it undoubtedly benefited the agriculturist. The charge that is sometimes leveled against the co-operative credit movement that it has only provided another source of borrowing for the agriculturist, resulting in an increase of his indebtedness, is not, in my

¹ One lakh = one hundred thousand.

opinion, proved. The Royal Commission on Agriculture has summed up its own conclusion in these words.

Where the co-operative movement is strongly established, there has been a general lowering of the rate of interest charged by the moneylender; the hold of the moneylender has been loosened, with the result that a marked change has been brought about in the outlook of the people.

This picture, to my mind, is fairly true. But the wider benefits that were expected of the movement have not been realized. In the process of our national reconstruction, the economic factor of the movement that counts is the business efficiency of the co-operative institutions—their utility in enhancing the agricultural incomes and wealth of the country, relieving the burden of unproductive debt, freeing the rural trade from needless middlemen, and enhancing the value and reputation of the country products in the market. Its moral factors that count are "the sense of harmony and unity" that the movement creates, tolerance of divergent opinions, intolerance of waste and consciousness of individual freedom and worth." Judged from either of these standpoints, it must be admitted that the movement has achieved very little.

In regard to the future of the co-operative credit movement, it depends, in my opinion, on our capacity to improve the organization so as to ensure that the credit liberated by the co-operative banks is *productive, prompt, and adequate*, the aim being ultimately to replace individual moneylenders by organized banking institutions of the type specially suited to the conditions and requirements of the agriculturist. We must try to bring every village within the area of operation of a society, constituted for a group of villages where conditions warrant it.

In order to place the working of these institutions on a more scientific basis, we must classify the loans not merely with reference to the purposes for which they are borrowed, but also with reference to their economic background. In the effort to ensure that co-operative credit is in the main dispensed for productive purposes, some attention was paid in the past to the purposes for which the loans were dispensed, though without much success. Little attention was, however, paid to the real economic background of these loans in relation to the sources of their repayments. The scheme of collection was not based on any rational method. The short-term, self-liquidating loan is generally repayable out of the next harvest, that is, out of the gross yield for the current year. The intermediate loan is recoverable in annual installments spread over a small number of years, usually not exceeding three to five, and should come out of normal annual savings from the agriculture in those years. The long-term loan can come back only in dribs and drabs in the course of a substantially long period which may extend to twenty-five or thirty years, and has to come out of the enhanced margin of profit accruing from savings in the interest charges or from increased yield of land consequent on the judicious use of the loan.

The gross yield, the net normal savings, and the enhanced margin of profits constitute, from a true economic standpoint, three distinct sources of repayment. If this scheme of repayments is popularized and strictly enforced, there will be little hardship to the borrower. The aim of the state as well as of the public should be to co-ordinate the activities of these different types of co-operative credit organizations so as to cover the economic needs of the agriculturist in the various spheres of his

activities. One of the main defects of the movement is the absence of such co-ordination. The working out in practice of the scheme of classification mentioned above will go a long way in the process of co-ordinating the activities of these institutions.

ROLE OF THE RESERVE BANK OF INDIA

The Reserve Bank of India, which was established in 1935, is now the recognized central banking institution, the crown of the banking system of the country. "The Bank's operations directly affect the money market and the development and working of the banking system of the country as well as its currency and credit structure, and indirectly the entire range of its economic activity," as the Governor of the Reserve Bank puts it. What is of particular interest to us here is the role that the bank plays in the scheme of agricultural finance.

In defining the classes of business that the Reserve Bank may transact, provision is made in section 17 of the Reserve Bank of India Act for the grant of financial accommodation for the purpose of financing seasonal agricultural operations or the marketing of crops against the security of the bills of exchange and promissory notes endorsed by a scheduled bank or a provincial co-operative bank and maturing within nine months from the date of the purchase or rediscount thereof by the Reserve Bank; and for making loans and advances for fixed periods not exceeding 90 days against the security of promissory notes of a scheduled bank or a provincial co-operative bank supported by documents of title to goods held by such bank as security for a cash credit or an overdraft. There is also provision for the Reserve Bank to make loans and advances for periods not exceeding 90 days to the co-operative movement against Government Securities and Treasury Bills and Approved Debentures of Co-operative Central Land Mortgage Banks which are declared Trustee Securities. These provisions are no doubt well conceived, but in actual practice they have turned out to be of little or no benefit to agriculturist.

In regard to Government Securities and Treasury Bills, the co-operative banks do not hold any appreciable quantities of such paper over and above their own requirements for fluid resources, and very little use can be made by them of this concession. As for accommodation on "Approved Debentures of Co-operative Central Land Mortgage Banks," the Reserve Bank has hedged it with the somewhat vague qualification that the debentures should, in the opinion of the Reserve Bank be readily marketable. So far, the Reserve Bank has not recognized, for purposes of accommodation, the debentures of even the Madras Co-operative Central Land Mortgage Bank, which has so far issued debentures to the value of about two and a half crores of rupees.

These debentures are very popular among investors. This attitude of the Reserve Bank will hamper the further development of these banks. By reason of the interpretation placed on section 17—which may, no doubt, be legally sound—the documents of title to goods and bills of fixed maturity which the bank will recognize as valid securities are recognized warehouse receipts and usance bills. These have yet to be created. It will take a long time to bring into use such securities. Unless the Reserve Bank of India advises the Government to amend the provisions of section 17 of the act so as to permit business with provincial co-operative banks against co-operative paper of the kind now in existence, subject, of course, to standards of safety and soundness laid down by the Reserve Bank, little use can be made of these

provisions for purposes of agricultural finance. The Reserve Bank is now preparing a scheme for extending financial accommodation to the co-operative central banks through the provincial co-operative banks for the purpose of financing seasonal agricultural operations or for the marketing of crops at special rates by granting rebates to the provincial banks which rediscount agricultural bills with the Reserve Bank.

It may also be mentioned that the Reserve Bank has recently so modified its scheme to provide to the co-operative movement remittance facilities as to place the provincial co-operative banks, including the central banks affiliated to them, more or less on the same footing as the scheduled banks, in regard to such facilities. The provincial co-operative banks in Bombay, Madras, Sind, and the Punjab, and the Ajmer Central Co-operative Bank have so far availed themselves of this scheme.

AGRICULTURAL CREDIT DEPARTMENT

Simultaneously with the establishment of its Issue and Banking Sections, the Agricultural Credit Department of the Reserve Bank was also inaugurated. Its statutory functions are (1) to maintain an expert staff to study all questions of agricultural credit and be available for consultation by the Government and the banking organizations concerned, and (2) to co-ordinate the operations of the bank in connection with agricultural credit and its relations with provincial co-operative banks and any other bank or organization engaged in the business of agricultural credit. The department keeps in touch with the various matters pertaining to the co-operative movement, debt legislation, rural reconstruction, and land mortgage banking. Some instructive bulletins have been issued by this department on the working of the co-operative movement and methods of improving agricultural finance. It has issued a review of the co-operative movement in India for the year 1939-40, and promises to make it an annual feature. The department has also taken over from the Director-General of Commercial Intelligence and Statistics the publication of statistical tables relating to the co-operative movement in India.

Section 55 of the act, which gives us an indication of the role which the Reserve Bank can and ought to play in the scheme of rural finance, requires the bank to submit a report to the Central Government (1) on the improvement of machinery for dealing with agricultural finance and (2) on the methods to be adopted for effecting a closer co-operation between agricultural enterprise and the operations of the bank. The preliminary and the final reports submitted to the Government of India under this section in 1936 and 1937 contained some useful suggestions for improving the working of the co-operative banks and for regulation of the business of moneylenders. But there is very little in these reports which carries out the main implications of the section. While fully realizing that it is not the function of the Reserve Bank to cater directly to normal credit needs of the scheduled banks or co-operative banks and the defects in the co-operative credit banks which, to some extent, render them ineligible for accommodation, I still feel that the Reserve Bank can do much more than it has hitherto done "to establish closer co-operation between agricultural enterprise and the operations of the Bank."

An organized system of sound rural credit is, no doubt, a great need of Indian agriculture, as it is an important factor not only in the cost of production, but also in

rescuing the agriculturist from the perils of usury and the exploitation of money-lenders. It would, however, be a mistake to suppose that in such credit alone "lies the panacea of all the ills from which the agriculturist suffers to-day," as the Central Banking Enquiry Committee aptly puts it. Agriculture in India is today an unprofitable industry, and our agricultural economy is a deficit economy. Credit alone cannot make agriculture profitable and convert a definite economy into a surplus economy. Solution for the problem must therefore be sought in other directions. Many complex factors—political, social, and economic—enter into the question of removing the existing impediments to efficient production.

Hon. V. Ramadas Pantulu, Advocate, Madras High Court, has been a Member of the Council of State (Upper Chamber of the Indian Legislature) since 1925, and is now leader of the Congress Party in that Council. He is president of the All-India Co-operative Institutes' Association and the Indian Provincial Co-operative Bank's Association; is representative of the Indian Co-operative Movement on the Central Committee of the International Co-operative Alliance; and is a member of the Indian Central Cotton Committee, the Governing Body of the Indian Research Fund Association, and the Advisory Board of the Imperial Council of Agricultural Research.

The Trade of India

By B. K. MADAN

THE volume of the internal trade of a subcontinent like India must be several times its external or foreign trade, and its relative importance must have grown with the shrinkage of the latter during the Great Depression, which intensified the general trend to economic nationalism and self-sufficiency. No reliable estimate of the quantum of inland trade is, however, available, and the very concept of such trade lacks definiteness. The monthly statistics of the inland (rail and river-borne) trade of India published by Government relate to interprovincial or interblock trade, India having been split up for the purpose into 22 principal blocks of which 12 represent the British provinces (including Delhi province), 5 represent the principal port towns, and 5 represent major Indian states or groups of them. These statistics take no account of intrablock trade, of which there may be several gradations, such as interdivisional, interdistrict, inter-taluka, and intervillage trade. It is clear that no estimate of internal trade as thus comprehensively understood is possible, and, short of that, its amount or volume will depend upon the number of units into which the country is divided for the purpose of recording the movement of goods. A study of the internal trade of the country must, indeed, be coextensive with a study of its production, economic activity, and transport.

Here we shall briefly consider the trends of, and the policy underlying, India's foreign trade of which regular and up-to-date accounts are available. International

trade has a peculiar significance also in that the differences in the relative advantages of production of different countries which give rise to it are wider, the costs of transport ordinarily greater, and the mobility of factors of production much lower than in respect of internal trade; so that, theoretically, the utility of a given volume of international trade is larger than that of an equal volume of internal trade. A study of international trade is, besides, more important for an appraisal of the position of a country's economy vis-a-vis the international economy, and vice versa, while the internal specialization of economic activities among the different regions of a country has fewer international implications.

The significance of our study of Indian trade, based as it is on published foreign trade returns, is, however, reduced by the noninclusion of the large and growing volume of trade on government account.

TRADE BEFORE THE WAR

During the period of a decade or so before the war, far-reaching shifts were taking place in the volume, the character, and the direction of international trade, which were at once the consequence and the cause of developments in trade policies, and which had their repercussions in this country. Table 1 gives a general view of the position of India's trade during the ten years before the outbreak of war and since the onset of the Great Depression.

A feature brought out by Table 1 is an adverse change in the terms of Indian trade, or the index of the price level of exports in terms of imports in relation to the predepression year, which experienced only a partial and temporary improvement in 1936-37. This means that compared to the year before the depression, India has been able to obtain a smaller quantity of imports in exchange for a given volume of exports, or has had to export relatively more to secure a given quantum of imports. The deterioration in this respect has been appreciable.

TABLE 1

	1927-28	1932-33	1936-37	1938-39
Quantum of :				
Exports	...	100	74.9	107.4
Imports	...	100	81.4	88.7
Price level of :				
Exports	...	100	55.3	57.2
Imports	...	100	65.2	62.8
Terms of trade (ratio of index of price level of exports to imports)	...	100	84.8	91.1
Value of :				
Exports	...	319	135	202
Imports	...	250	132	125
Balance of trade	...	+69	+3	+78
Balance of treasure (transactions in)	...	-34 ^a	+65	+14

^a1928-29

A heavy fall in the value of Indian trade up to 1932-33 as a result of a combined fall in the quantum and the price level of exports and imports is disclosed by the figure in Table 1. Altogether, the fall was greater in price level than in quantum, both in respect of exports and imports, and greater in exports than in imports, in quantum as well as price level. As a result, the favorable balance of trade almost disappeared. An appreciable recovery in exports, mostly due to an increase in quantum, took place between 1932-33 and 1936-37, but in the latter year they were still only 60 per cent of their predepression value. Imports continued to stagnate, and the balance of trade touched a high level again in 1936-37. Recession in the export trade, however, supervened in the two years following, while imports showed signs of revival and the export surplus dwindled to small proportions in the year before the present war. The separation of Burma, effective from April 1, 1937, also affected the Indian balance of trade adversely to the tune of about Rs. 15 crores: in 1937-38, exports to Burma were Rs. 11 crores against imports valued at Rs. 26 crores. India's exchange position was, however, not immediately affected thereby, since India and Burma continued to form one currency and exchange unit.

The reduction of the export surplus during the depression created a gap in the balance of payments which was filled by a steady and large outflow of gold after the first devaluation of the rupee along with sterling in September 1931, the total exports of gold up to March 1939 being Rs. 335 crores.

Direction of trade and bilateralism

As regards the direction of India's trade before the war, the increase in the proportion of exports going to the United Kingdom roughly from 22 to 32 per cent over ten years, and latterly, the striking advance in the share of Japan from 8.5 to 16 per cent, stood in direct contrast to the decline in exports to five principal European countries from 24 to 16 per cent. In respect of imports, the relative share of the United Kingdom, which had suffered a continuous decline from 61 per cent in 1920-21 to 45 per cent in 1928-29, dropped steeply to 35.5 per cent in 1931-32. As against this, the competitive position of Britain's principal rivals, namely, Germany, the United States, and Japan, improved appreciably. After 1931-32, the United Kingdom's proportion of Indian imports moved upwards and Japan also forged rapidly ahead. France, Italy, and Belgium were the principal losers.

An outstanding feature of the direction of India's trade until 1931-32 was that her imports from the United Kingdom greatly exceeded her exports to that country; on the other hand, she had a favorable balance of trade with most other countries. To the United Kingdom, however, India had to make large annual payments on account of: interest on the overseas debt; profits and commissions of industrial, commercial, and financial concerns; salaries, allowances, and pensions; and so forth; and "the export surplus required for these payments was not obtained in trade with that country, but with other consumers of Indian products in all continents." This triangular character of trade underwent radical change between the years 1929-30 and 1936-37, during the course of which India's heavy negative balance of trade with the United Kingdom, amounting to Rs. 34 crores, turned into a large positive balance of Rs. 18 crores. Thus, for the first time, the net invisible imports from the United

Kingdom were paid for to an important extent by net visible exports to that country. This important shift in trade signified the increase in bilateral at the expense of triangular trade.

The general causes which accounted for the increasing relative dependence of Indian exports on the United Kingdom market and, therefore, for bilateralizing Indian trade, were: the relative incidence of the depression, which was more severe in many European continental countries than in Britain; the pursuit of self-sufficiency by European countries, which reduced the demand for Indian exports of foodstuffs and raw materials on the part of these countries; the comparative stability of exchange between the United Kingdom and India; the protectionist policy of Britain; and the operation of the Ottawa Trade Agreement extending reciprocal preferences on trade between the United Kingdom and India.

Trade agreements

An important landmark in the sphere of Indian commercial policy was the conclusion on August 20, 1932, in consequence of the discussions at the Imperial Economic Conference at Ottawa, of the Trade Agreement between His Majesty's Government and the Government of India. This agreement provided for a preference to the United Kingdom of 10 per cent in general on a wide range of Indian imports, varying amounts of specific margins of preference on a more limited list, and free entry from all sources of certain Indian commodities, in return for a preference of 10 per cent in most cases on many articles imported into the United Kingdom from India. The underlying motif of a change in India's fiscal policy was a change in the British fiscal policy. The United Kingdom-India agreement was framed largely as a measure of insurance against the losses apprehended in the markets of the Empire, if India were to stand apart from a scheme of Empire preferences, at a time of general economic dislocation, decline in trade, and restrictive national policies. And in fact the real net addition to trade caused by the Ottawa preferences, through the greater part of their period of operation, was of modest magnitude. In days of comparative freedom of trade, this gain might well have been completely offset by losses in other important markets caused directly or indirectly by the working of the preferences; but with the unsatisfactory working of the competitive mechanism, the loss of exports to other markets *in consequence* of the grant to preferences in the United Kingdom would have been certainly less than the additional exports of the United Kingdom itself.

A general judgment on the results of the Ottawa Agreement in respect of Indian trade must, however, take account not only of the effect on export trade, but also of the "loss of revenue" or "burden on the consumer" involved through the grant of preferences on imports which was particularly heavy in respect of the preference in protective duties extended to British imports of iron and steel and cotton textiles, two major lines of imports. Over and above this, an important criticism of the Ottawa Agreement was its omnibus character in granting preferences on extensive lists of articles, which inhibited the conclusion of satisfactory trade agreements with other countries, provoked retaliation abroad, and in general rendered more difficult the securing of equality of commercial opportunity for Indian exports in the world markets.

The Indian Legislative Assembly recommended termination of the agreement on March 30, 1936, and after protracted negotiations a new agreement, which took

account of some of the considerations mentioned above, was concluded early in 1939 and is still in force.

Mention may as well be made here of the important supplementary Indo-British Agreement signed on January 9, 1935, later incorporated into the new agreement just referred to, which aimed to further industrial co-operation between the United Kingdom and India. It introduced certain limitations, including discrimination in favor of Britain, on the protective policy of India in return for the promise of the United Kingdom Government to consider schemes for developing the import of raw or semi-manufactured materials from India. The agreement was applied in practice to cotton and iron and steel.

The Indo-Japanese Agreement concluded towards the end of 1933, and renewed with modifications in 1937, provided for the linking of imports of Japanese piece goods on a sliding quota basis with exports of Indian raw cotton.

Composition of trade

The composition of India's trade was undergoing important changes in the prewar decade. India's export trade in 1938-39 was composed to the extent of 45 per cent of raw materials, 23 per cent foodstuffs, and 30 per cent manufactured articles. The proportion of foodstuffs had declined during the years of depression, owing to the trend toward self-sufficiency in food in the countries of continental Europe already observed. In the field of imports there was a marked falling off in consumers' goods like cotton and other textile manufactures, while imports of capital goods and semi raw materials such as machinery, instruments and apparatus, chemicals and dyestuffs, petrol and fuel oils, and rubber manufactures increased greatly. These related trends reflected the general expansion of Indian industry which was taking place behind the relatively high tariff wall. Besides, imports of articles such as motorcars, cycles, electrical appliances, wireless, telegraph, and telephone apparatus, and provisions also went up under the stimulus of the wider general demand by the Indian public for the amenities and facilities of modern life.

TRADE DURING THE WAR

The disruption of the normal channels of international trade consequent on the closing of the European markets to overseas producers, the division of the world into three trade blocs with the entry of Japan into the war, the growing shortage of tonnage and the greater costs and risks of transport, and the tightening of export, import, and exchange controls have naturally caused dislocation of India's foreign trade; Nevertheless, it has shown a marked resilience under heavy strain.

Table 2 shows the indices of quantum and price level of imports and exports for the last four years, and the figures of value of trade during the same period.

The immediate result of the present war was a considerable stimulus to exports and a slight improvement in imports, with a striking improvement in the balance of trade. The first full year of war, 1940-41, however, saw some recession in exports and imports as well as the balance of trade; but the second full year, 1941-42 witnessed an appreciable improvement more marked in respect of exports than imports, and a substantial increase in the export surplus.

A reference to the indices of quantum shows that the while quantity of imports had declined to three-quarters of the prewar level by 1941-42, that of export in the same was only slightly lower than in 1938-39. The price level of both exports and imports has increased consistently throughout the war period, and was up by about 55 per cent in 1941-42.

The tendency to closer trade relations with the countries of the British Empire already in evidence in the prewar period, particularly in respect of the United Kingdom, has become more pronounced since the war, especially in respect of exports. Since 1938-39, exports to the British Empire have increased by over Rs. 63 crores, or nearly 75 per cent, while imports have gone up by Rs. 17 crores, or about 20 per cent. The import surplus of Rs. 3 crores in India's trade with the Empire, excluding re-exports, was accordingly converted into an export surplus of Rs. 43 crores in 1941-42. Most of the improvement in the balance of trade was accounted for by the United Kingdom.

TABLE 2
(Original base 1927-28=100 ; shifted to 1938-39=100)

	1938-39	1939-40	1940-41	1941-42
Imports				
Quantum	100	102	81.3	74.2
Price level	100	106.4	126.7	153.4
Value (in crores of rupees)...	152	165	157	173
Exports				93.4
Quantum	100	104.5	88.1	155.9
Price level	100	119.8	130.3	253
Value (in crores of rupees) ...	169	214	199	
Balance of trade	+17	+49	+42	+80

The most striking increase during the war in India's trade outside the Empire has been with the United States. Imports from that country rose from Rs. 9.8 crores in 1938-39 to Rs. 34.6 crores in 1941-42, and exports to that country advanced from Rs. 13.9 crores to Rs. 46.4 crores. The relative share of the United States of the import trade improved from 6.4 to 19.9 per cent, and of the export trade from 8.5 to 19.5 per cent. Japan had been making rapid headway in the import trade of India, which was only halted by the freezing of the Japanese assets in July 1941.

The two outstanding developments during the war in the composition of Indian trade on private account have been considerable increase in imports of raw materials absolute as well as relative to total imports (from 22 to 29 per cent), and a phenomenal improvement in the exports of manufactured articles (relatively from 30 to 46 per cent).

While no precise information is available in regard to the increasingly important trade on government account, a rough idea of the stimulus to trade given by government purchases is furnished by the value of purchases made by the Supply Department, which total Rs. 365 crores from the outbreak of war up to July 31, 1942. The heavy favorable balances of trade combined with disbursements of funds in India on a

considerable scale of account of war purchases on behalf of His Majesty's and other Allied governments, have led to large accumulations of sterling assets, which are mounting every month and have been partly utilized for the purpose of repatriating most of India's outstanding public sterling debt. In effect, India will on the balance, cease to be a debtor country after the war and will have large balances to draw upon for the purpose of financing imports of essential capital equipment for economic and industrial development. This will also involve a corresponding adjustment in the balance of payments more favourable to imports.

TRADE AFTER THE WAR

Industrial development and volume of trade¹

We have already passed to a consideration of the position of postwar Indian trade, and the bearing on this on industrial development is important among the general problems of trade after the war.

Industrialization may lead to some immediate contraction of the volume of foreign trade through the substitution of home output for foreign imports, but the effect would tend to be counteracted by the special stimulus afforded to imports of capital and producers' goods, like machinery and plant, raw materials, and semimanufactured goods, which might be brought in increasing quantities. This tendency is indeed already in evidence. In course of time much imports may also be progressively replaced by home production, but the resulting increase in the purchasing power of the population and in their standards of living will create an effective demand for new imports of high grade goods for final consumption.

International trade may thus change in quality, it may increasingly tend to become a complex interchange of a variety of manufactures instead of a simple exchange of raw materials for manufactured articles, but the ultimate effect of industrial expansion on the volume of foreign trade, including imports, should be directly favorable. The industrial development of economically backward countries will not only be necessary in the interest of the populations of those countries, but will be a means of providing an expanding outlet for the growing productive capacity of the industrially advanced nations, and for assuring industrial economic stability in the postwar world.

Two basic facts

A consideration of the position of international trade after the war must reckon with two basic facts, the significance of which has been increasingly evident of late. The twenty years between the two wars were an era of increasing restriction of international trade and the development of autarky. Tariffs, quotas, exchange controls, clearing and compensation agreements, contingent and licensing system, prohibitions and monopolies, besides the manifold devices of administrative restriction and discrimination, reduced trade to small proportions, made international co-operation a mere slogan, and became a major factor in precipitating political discontent.

¹ For a fuller treatment of this aspect of the subject, reference may be made to an article by the present writer on "The Position of and Prospects of India's Foreign Trade," in *What India Thinks*, Calcutta : National Literature Co., 1939.

Some reversal of this trend forms a definite item in the postwar policy of the United States and the United Kingdom. The terms of the Atlantic Charter signed by President Roosevelt and Mr. Churchill (August 1941) promise the enjoyment, by all states, of access, on equal terms, to the trade and to the raw materials of the world needed for their economic prosperity; and the Principles of Mutual Aid enunciated in the agreement between the United States and the United Kingdom dated February 23, 1942 refer to making provision for agreed action by the United States of America and the United Kingdom.

open to participation by all countries of like mind . . . directed to the elimination of all forms of discriminatory treatment in international commerce and to the reduction of tariffs and other trade barriers and to the attainment of all the economic objectives set forth in the Joint Declaration [the Atlantic Charter].

A refreshing realization of the need for greater sanity in international economic relations is also indicated in recent utterances of American statesmen, who have freely condemned the high protectionism of the United States during the early thirties as inconsistent with her role as a great creditor nation. And the Trade Agreements Act, 1934, seems to mark the beginning of a decisive reorientation of American fiscal policy in the direction of freer trade *cum* equality of trading. The United States has been in the interwar period, negatively, and may be in the postwar period, positively, the most important factor in the international economic field.

In the United Kingdom during the years of growing tension before the war there could be discerned a steady drift of opinion in favor of freer trade and a realization of the considerable impetus given to the trend towards higher protection everywhere by the change in British fiscal policy. Sir Arthur Salter observed in a speech in the House of Commons.

it is literally and absolutely true to say that in the last five or six years since the depression, the commercial policy of no single country in the world has had so great an effect as has that of our country in restricting and deflecting the trade of the world.¹

Sir George Schuster expressed similar sentiments in an article in the *Nineteenth Century* (September 1936), and *The Economist* concurred in this general conclusion. It declared that the closed door in the dependent Empire was compatible neither with economic sanity nor with imperial trusteeship nor with international appeasement (May 1, 1937). More recently, even *The Times*, while arguing that Great Britain has a supreme interest in a revival of the free exchange of goods and services, has admitted that in this respect Great Britain, together with the United States, has been a "notorious offender" (January 11, 1941).

International co-operation is vital to the establishment of a postwar international economic order making for durable peace. The great fact of the close economic interdependence of nations implies that national economic policies must be framed with regard to the interests of other nations. This implies a broad equality in trading conditions, and an end of imperial preference and the old colonial policies.

Another basic fact, however, must be equally reckoned with. An all-round return to freer trade after the war is ruled out by facts: no restoration of unlimited

¹ Quoted in *Economist* May 29, 1937.

division of labor is possible. While every country has certain decisive natural advantages, the system under which some countries were solely dependent upon a few staple lines of production is going to yield to increasing diversification of economic and industrial structures. Fundamental social and strategic considerations underlie the shift to more balanced national economies. The process of industrialization of agricultural countries and of agricultural development in industrial countries cannot be altogether reversed, though the inevitable overdevelopment of some activities in all countries during wartime will have to be scrapped if freer trade is not to remain an empty cry.

Also, devices like tariffs and subsidies, quotas and clearing agreements, will not be completely discarded. They are developments in the technique of trade regulation, and though the degree and the objectives of trade control may be subject to change, the instruments of such control have come to stay, since some form of control of international trade is going to be an integral part of the plans of social and economic organization for national economic development; but such control must be exercised in consultation and agreement with the governments of other nations concerned, and must be informed by a broad conception of true national interest ultimately in harmony with the interests of other nations, and not dictated by narrow profit notions, of pressure groups and privileged classes.

Equality of treatment

The very statement of the two basic facts above brings out the difficulty of satisfactory international postwar trade adjustments. It is unnecessary to speculate further about the full shape of things to come. Much in the above picture is hypothetical. A statement of future Indian trade policy in the circumstances must remain correspondingly hypothetical. Briefly, I think, India will not abandon protection but may discard direct preference and discrimination. The question of protection forms the subject matter of a separate contribution to this volume. The present writer has treated the subject of Indian foreign trade policy in a work written shortly before the outbreak of the present war,¹ and the outlines given there may turn out to be generally suitable for the postwar reconstruction of Indian trade. It is fundamental to secure in respects of exports and therefore to grant in respect of imports, a broad equality of treatment. Equality represents the reign of law, the framework of order, in international trade relations. Without it, inequality, discrimination, and exclusion, with consequent ill will, suspicion, and retaliation, will govern international economic relations. And a simultaneous treatment of the sources of political and economic friction could alone establish political peace and commercial equality on a firm foundation. The damage done to the principle of equality could, however, only be repaired by the joint exertions of the most important commercial nations. Even so, the constant aim of Indian commercial policy should be the promotion of as large a measure of equality as practicable, consistent with the tone of the general international situation and the economic temper of the world.

In certain circumstances, when liberalist impulses are repressed and restrictionism reigns, the immediate value of a preferential trade policy may be considerable;

¹ *India and Imperial Preference : A Study in Commercial Policy*, London : Oxford University Press, 1939.

but altogether, discrimination holds no promise of durable advantage to international trade. Perhaps the article may be concluded with the last words of *India and Imperial Preference*:

It will be noticed that the policy (set out above) is in essentials similar to that being followed by the United States of America (since 1934). That country has consistently refused to be a party to the current type of exclusive reciprocal trade agreement and has resolutely pursued the objective of securing what small advance is possible on liberal lines amid the general illiberal trend of commercial policies. India would do well to follow this straight lead which eminently suits her position as a great exporting country.

There may be more reason and force behind this exhortation after the war than when the above lines were written.

B. K. Madan, Ph.D., is Director of Research in the Reserve Bank of India, Bombay. He was formerly Economic Adviser to Government, Punjab, Special Officer on Resources, Punjab Government, and University Lecturer in Economics, Lahore. He has served as secretary and member of the Board of Economic Inquiry, Punjab, and is a member of the Executive Committees of the Indian Economic Association and the Indian Society of Agricultural Economics. He is author of India and Imperial Preference; A Study in Commercial Policy (1939) and Some Aspects of Rural Economy in the Punjab (1934).

Commercial Organization in India

By G. L. MEHTA

ALTHOUGH commercial organization in the modern sense is of recent origin in India, trade associations and craft guilds have always been in existence. Such trade associations, known as mahajans, were usually organized for specific lines of commerce or commodities, such as associations for grains or seeds or piecegoods; they formulated certain rules for trading and working, and their principal men saw to their observance. They had a good deal of authority over their members and could on occasion take disciplinary action against recalcitrant parties. Whether as a mark of sorrow on the death of a prominent person or to register their protest against some action of the rulers which they disapproved, such associations observed hartals (closure of shops and offices), and they also, if occasion arose, organized boycotts. Although not constituted on any systematic lines or functioning from day to day, these associations exercised considerable power and often enough the ruler of a state had to yield to the wishes of these mahajans which controlled trade and organized public movements.

These mahajans survive to this day and still exercise authority on a voluntary basis among their own members; they determine, for example, their own holidays, and collect funds for philanthropic purposes. While in most of the Indian states they take the place of modern commercial bodies, in other parts of India they overlap and work jointly with modern commercial bodies and associations.

EARLY CHAMBERS OF COMMERCE

It remains true, however, that the history of the growth of commercial organization on modern lines in India is concomitant with industrial and commercial development in the country which commenced about a century ago. By the beginning of the nineteenth century, Britain had been able to obtain a substantial hold over India, both politically and economically. The trend of the foreign trade of the country had already been reversed. India, which used to export large quantities of cotton piece goods and other finished articles to European and other foreign markets, had begun to import manufactured articles, mainly from the United Kingdom. The British commercial interests had obtained a firm control over the foreign trade of the country. They were largely concentrated in port towns, which became the natural centers of trade. It was in 1834, when Lord William Bentinck was Governor-General of India, that the first chamber of commerce in India, namely, the Bengal Chamber of Commerce, was formed. The honor of having the first chamber of commerce in the country, therefore, goes to Calcutta and Bengal.

The early history of the Bengal Chamber of Commerce is a little obscure, because no records prior to 1851, when the chamber was more or less reconstituted, are available. The chamber continued to be an "unregistered association of merchants, bankers, shipowners, insurance companies, brokers and others engaged in commerce and industry" till in 1893 it was incorporated as a public company under the Indian Companies Act. In that year also the chamber acquired its present premises, and twenty-two years later the present building was erected on the site.

It was only two years after the establishment of the Bengal Chamber of Commerce that similar chambers were established in Bombay and Madras. The Cochin Chamber followed in 1857, and the Karachi Chamber in 1860, and the Coconada Chamber in 1868.

It must be emphasized that all these chambers were organizations of the British commercial community settled and carrying on trade in various centers. Membership of some of these chambers is by rule confined to Europeans, although there are certain bodies like the Bengal and Bombay Chambers of Commerce which have a sprinkling of Indian members. Distinguished Indian businessmen, some of whom have been working in close collaboration or even partnership with British firms, have never been admitted to membership in the Committee of the British Chambers of Commerce in India. Incidentally, this is an eloquent comment on the plea put forward by these very bodies against discrimination between Indians and non-Indians in commercial spheres. Indians had, so to say, lived on sufferance in their own land because nearly all the important lines of trade and business of the country had gradually concentrated in the hands of British mercantile houses, partly owing to their vast financial resources and overseas connections, and partly owing to the political influence and prestige that they wielded due to the character and personnel of the administrative system. Towards the latter half of the nineteenth century a few enterprising Indians, mainly the Parsis, established cotton textile mills on the west coast of India.

TRADE ASSOCIATIONS

Although the earliest chamber of commerce, as stated above, was started in 1834, there were certain associations of specific trade interests which were established

earlier. As far back as 1801, the indigo planters of Bihar, again all Europeans, formed themselves into an association.

to facilitate correspondence with the Government in the interests of the community, to safeguard those interests and to deal with applications for the settlement of disputes between one member and another or between members and local zamindars and ryots.

The Calcutta Trades Association was also founded in 1830, in order to look after the interests of European businessmen in retail trade. These trade associations of European merchants continue till now, and although they are in a more or less moribund condition and are, for all practical purposes, indistinguishable from the British chambers of commerce, they are given separate representation on such bodies as port trusts.

Problems affecting a particular industry are naturally of a special character, and different industries therefore have their own organizations to deal with their specific problems. Such associations, however, center around one or another of the important chambers of commerce, which, on, their part, concern themselves with all general matters pertaining to commerce and industries. For example, the Indian Jute Mills Association and the Indian Tea Association are affiliated with the Bengal Chamber of Commerce. During the last few years, however, when Indian industrialists have acquired increasing interests in the jute mill industry, one or two seats have been allocated to representatives of Indian-owned and managed jute mills in the executive of the Jute Mills Association, whereas previously such mills had to depute their European managers or engineers to represent them.

FUNCTIONS OF COMMERCIAL BODIES

These commercial associations, whether chambers of commerce or specific trade associations or industrial organizations, have broadly similar functions to perform, such as to safeguard their common interests, to evolve, establish, and maintain trade conventions and practices, to arbitrate for settlement of trade disputes, to carry on correspondence with Government and other public bodies or meet official representatives on matters concerning trade and commerce, and to collect and circulate statistics and other information relating to trade and industry. These chambers or associations also perform other functions which, although incidental, are of importance, such as, for example, registration of trade marks, issue of certificates of weightment and origin, survey and sampling.

In order to enable these commercial bodies to perform their duties satisfactorily and effectively, it becomes essential for them to be represented on various governmental and public bodies, in short, to be recognized by the Government and the public as representative commercial organizations. In 1834 the Calcutta Trades Association presented a memorial to the then Governor-General Lord William Bentinck, requesting him that "the Association should be recognized as a public body with authority to address Government when they desire and at sufficient and reasonable cause for so doing," and this request was acceded to. Various important chambers of commerce and trade associations are today statutorily represented not only in the Central and provincial legislatures but also on many other government and public organizations and committees, like port trusts, railway advisory committees, municipal corporations, and so forth. Members of these bodies are also from time to time taken on various adhoc commissions and committees.

The chambers of commerce and associations also serve as useful channels for creating and maintaining personal contacts between representatives of the commercial community and the government authorities. For example, the annual meeting of the association of all European chambers of commerce (called the Associated Chambers of Commerce), which is held about the middle of December every year in Calcutta, is usually opened by the Viceroy and is attended by the Governor of Bengal and members of the Central and local governments. Members of the Executive Council of the Governor General in charge of Departments having to deal with trade and commerce, such as the Departments of Commerce, Communications, and Finance, as also members of the Railway Board and of the Central Board of Revenue, visit important trade centers from time to time and meet the committees of the various chambers for personal discussion of outstanding matters of importance to the business community. Personal contacts are also maintained with various railway and port officials through representatives of the chambers of commerce on these bodies.

BEGINNING OF INDIAN BODIES

We have hitherto confined our attention to organizations of the European or predominantly British commercial community. These bodies were earlier in point of time and wielded considerable power and influence, partly owing to their wider experience in such organized methods of work on modern lines, and partly owing to their political affiliations. Until the first years of the present century, whenever Indian commercial opinion was sought, it was the opinion of these non-Indian bodies that was accepted as Indian opinion, and the Government of India and provincial governments were guided by the advice tendered to them by British vested interests and their organizations. Although on vital issues there was a conflict of interests between Indians and Britishers, it was the opinion of the non-Indian commercial bodies that used mainly to determine the Government's fiscal, economic and industrial policy. Even in political and constitutional matters, the influence of British commercial organizations has been, in the main, reactionary and against the transfer of power from British hands into Indian.

Towards the last quarter of the nineteenth century, however, the first signs of India's industrial renaissance were visible along with the growth of the national movement. It is a curious co-incidence that the first chamber of commerce of Indian businessmen was formed in 1885, which was the year of the foundation of the Indian National Congress; this chamber was established at the port of Coconada, under the name and style of the "Native Chamber of Commerce." It will be apparent that even the name of the chamber confesses its history, because Indians, as a subject people, were called "natives" by the Britishers, and at the time it was not considered objectionable to describe the chamber in this manner. This name was subsequently changed to the "Godavari Chamber of Commerce," which still continues.

Two years after the formation of the Godavari Chamber of Commerce, the Bengal National Chamber of Commerce was established in Calcutta, and it still continues to be one of the important commercial bodies in the country. Here again it was Bengal that led the way, for it was not until several years later, in 1907, that the Indian Merchants' Chamber of Bombay was constituted through the efforts of some of the leading Indian businessmen.

In the course of a few years, chambers of commerce of Indian businessmen were formed in various centers in quick succession. The Southern India Chamber of Commerce, Madras, was formed in 1909, the Mysore Chamber in 1915, and the Buyers and Shippers Chamber, Karachi, in the same year. As is well known, the First World War gave an impetus to Indian trade and industries, and along with their development, Indian commercial organizations were also established at several places. Thus, during the last twenty years, chambers of commerce of Indian businessmen have been established at several important centers all over India.

Trade associations or associations of specific industries have also been established by Indian merchants and manufacturers, such as, for example, the East India Cotton Association in Bombay which was established in 1921, the Grain Merchants' Association in 1899, the Indian Mining Federation in 1913, the Indian Sugar Mills Association in 1932, and the Indian Chemical Manufacturers' Association as recently as 1938. The millowners in Bombay established their own association in 1875, which is today one of the premier organizations of the cotton textile industry in the country. The Ahmedabad Mill-Owners Association followed in 1891, and there are also such associations of textile mill-owners in Upper and Southern India and in Bengal. While in certain industries there are separate and distinct organizations of Indians and Europeans, as in coal or paper or tea, certain associations comprise both Indian and British industrialists, as, for example, Bombay Mill-Owners Association; while the Indian Sugar Mills Association also includes representatives of British-owned sugar mills.

Some of these associations, as already observed in the case of European chambers, are affiliated with some important chamber of commerce. For example, the Indian Chamber of Commerce, Calcutta, has today twenty-five associations affiliated with it, of which eleven have their offices located in the chamber itself. Similarly, some forty to fifty associations are affiliated with the Indian Merchants' Chamber of Bombay. Some of these associations also deal with vital questions concerning their own trade, such as standardization of trade conditions and terms of contract, and some of them regulate futures trading as well their own futures markets.

FURTHER DEVELOPMENTS

Apart from these commercial bodies which, as outlined above, gradually came into existence, an Indian Industrial Conference held annual sessions, along with the Congress, during the first two decades of this century. This conference was usually presided over by a leading Indian industrialist or businessman, whose presidential address surveyed the industrial and commercial situation in the country and offered suggestions to Government and the commercial community. The conference also passed resolutions focusing attention on important issues concerning Indian trade and industry. In 1915 the Indian Merchants' Chamber of Bombay organized the first Indian Commercial and Industrial Congress, and subsequently the Industrial Conference was merged in the Indian Industrial and Commercial Congress.

This congress met in subsequent years, and its last session was held in Madras in 1927. It was felt by leading Indian businessmen and industrialists that it was essential to have a permanent all-India body dealing with questions of trade and industry from day to day. Accordingly, it was resolved to convert the Indian Industrial and Commercial Congress into the Federation of Indian Chambers of Commerce

and Industry, which held its first session in Madras in December 1927 along with the last session of the Indian Industrial and Commercial Congress.

This Federation of Indian Chambers of Commerce is the central and apex body of Indian commercial interests for the whole of India, and comprises all the principal Indian chambers of commerce, trade associations, and industrial organizations, now totaling about seventy-five, which are its members. Its offices are located at Delhi, and its annual sessions are held in Delhi in March or April. It functions through a committee representing industrial and commercial men from all over India, which meets at different centers from time to time. The European chambers of commerce have also a central organization, which was established in 1920 and is known as the Associated Chambers of Commerce and is a member of the Federation of Chambers of Commerce in the British Empire. The Associated Chambers has fifteen chambers as its members.

There have also been in recent years certain communal chambers. Curiously enough, a beginning of this development was also made in Calcutta, with the formation of the Marwari Chamber in 1900 and the Marwari Association two years later. During the last ten years there have also been separate chambers of commerce of Moslems at some places. It must be stressed, however, that communal considerations and conflicts have fortunately not intruded into the commercial field. Almost all these chambers or associations having a communal designation are member-bodies of the Federation. Moreover, on almost every matter connected with trade and industry, the views of these several chambers of commerce are not at variance, and frequently they join together in their representations and meetings. The membership of the Indian chambers is, of course, open to all Indians, irrespective of creed or community, and there have been Moslem presidents of such bodies, as also of the Federation.

THE STRUGGLE FOR RECOGNITION

To those who are ignorant of Indian conditions, the struggle which Indian commercial organizations have had to carry on in order to win recognition from the Government in their own country may not be evident. It may be mentioned, for example, that bodies like the Indian Merchants' Chamber of Bombay and the Bengal National Chamber of Commerce of Calcutta were recognized for purposes of representation on public bodies like port trusts and legislative councils; as there was no central body of Indian commercial organizations, the Indian Merchants' Chamber of Bombay also secured a seat on the Central Legislative Assembly under the Government of India Act, 1919. In 1929 the Government of India extended an invitation to the Federation of Indian Chambers to send two delegates to represent it on the Central Banking Enquiry Committee, while another noteworthy step was taken by the Government in 1933 in associating Indian commercial men as advisers to the Government in their trade negotiations with the Government of Japan. This procedure has subsequently been followed in different trade negotiations with the United Kingdom, Japan, and Burma. The Federation of Indian Chambers and other Indian commercial bodies have similarly received representation on important government bodies and committees.

Nevertheless, the position remains anomalous and inequitable in many spheres. For example, Indian commercial bodies have to agitate and press for securing the right

to issue trade certificate of different kinds. Moreover, despite their natural right as nationals of the country and their control of trade and industry, Indian commercial interests are given only a minority of seats in such bodies as port trusts. For instance in Calcutta, while the single European Chamber of Commerce has six seats with one for the Calcutta Trades Association, another European body added to it, all the Indian commercial bodies together have only four seats. Instances of this kind could be multiplied wherein representatives of the people of the country have had to fight ceaselessly in order to secure rights and recognition in their own country.

Indian commercial and industrial interests have also been represented at the International Labour Conference at Geneva through their own employers' organization, namely the All-India Organisation of Industrial Employers, which is an exclusively Indian body, while there is a parallel organization called the Employers' Federation of India, with mixed membership of Britishers and a few Indians. Representatives of Indian commerce and industry created a favorable impression in Geneva in prewar years and have been elected president of the employers' group on more than one occasion, while their representative has been on the Council of the International Labor Organization. Indian commercial organizations also maintained contacts with the International Chamber of Commerce, which had its office in Paris, through the Indian National Committee.

CONFLICT OF INTERESTS

It will be apparent that throughout this description, there has been a clear line of demarcation between Indian and non-Indian commercial organizations. That is the result of the peculiar political conditions of the country, wherein two parallel sets of commercial and industrial organizations are inevitable. In the economic sphere more than anywhere else, there has been frequent and acute conflict of interests between Indians and Britishers. Indians for example, have been interested in developing their own manufactures and industries, while Britishers, anxious to maintain the exports from the United Kingdom and its hold on the Indian market, have been averse to a positive industrial policy and to erection of protective tariffs. The treatment meted out by powerful British shipping combines to indigenous enterprise in India's home waters has, more than anything else, sharpened the sense of this conflict.

British commercial interests have, indeed, provided through the constitution against the possibility of being adversely affected by national economic development. They have ensured their position, present and prospective, by providing unprecedented, comprehensive, and rigid safeguards in the Government of India Act of 1935. It has been stated, in fact, by prominent British politicians themselves that these safeguards were the maximum which human ingenuity could devise. Apart from the fact that the British community has been given representation in the legislatures, particularly in Bengal and Assam, out of all proportion to its numbers, sections 112 to 116 lay down detailed and elaborate safeguards for maintaining the economic status quo and the privileged position of British interests in India.

These sections virtually prevent the encouragement by the state of Indian enterprises against the competition of their powerful British rivals. For example, the incipient Indian chemical industry cannot receive any bounty or subsidy which is not also extended simultaneously to the mighty Imperial Chemicals. Similarly, not

only is any measure like reservation of the Indian coastal trade to Indian vessels made statutorily impossible, but the infant Indian shipping companies struggling for their existence cannot receive state support, on the extraordinary ground that it would constitute discrimination against the powerful British shipping combine which controls the major portion of the coastal trade of India and dominates the vast overseas trade of India.

Such limitations on the powers and rights of a legislature in order to protect a dominant section of the people which also rules the country is unheard of in the history of constitution-making. Indian commercial interests strongly and consistently resisted the inclusion of these safeguards in the constitution, and they have made it clear that such provisions are entirely unacceptable to them. It need hardly be stressed that these constitutional provisions are not devised in the interests of India, but are intended and calculated to preserve to non-Indian and particularly to British interests the exploitation of the natural resources and wealth of this country. Indian commercial interests have realized all too keenly that the solution of India's economic problems is indissolubly bound up with the achievement of political independence and national emancipation.

Gaganvihari L. Mehta is president of the Federation of Indian Chambers of Commerce and Industry, comprising about seventy-two organizations. He is connected with the Indian Chamber of Commerce in Calcutta, of which he was president in 1939, and has represented it on various public bodies, including the Calcutta Port Trust. He is a member of the Bengal Pilot Advisory Committee and the Central Lighthouses Advisory Committee, and is director of some commercial firms in Calcutta.

Railways and Roads in India

By C. N. VAKIL

THE present railway mileage in India is 41,000 miles. Out of this, 12,000 miles are strategic railways, the rest being classified as commercial railways. Compared with other countries, the railway mileage is small, if we take the area and population into account, as can be seen from Table 1.

TABLE 1

Country	Area (in thousand of square miles)	Population in 1931 (in millions)	Railway mileage in 1938 (in thousands)	Area in square miles served by one mile of railway	Number of persons served by one mile of railway
United States ...	3,738	123	237	15.8	523
United Kingdom ...	94	46	20	4.7	2,300
Canada	3,694	10	44	84.0	227
Australia	2,975	7	28	106.0	236
Union of South Africa	473	8	14	53.8	588
India	1,575	338	41	38.0	8,244

The traffic in goods and passengers has been on the increase particularly since the beginning of this century. In more recent years, the railways have made special efforts to increase passenger traffic by propaganda, special concessions, and extra facilities. Visits to places of interest and of pilgrimage, as well as tours by students on the one hand and travel for business on the other hand, have been encouraged. But passenger traffic has not shown an increase compared to the goods traffic. The internal trade of the country is known to be fifteen times as large as the external trade, and the total volume of trade must be reflected in the movement of those handling it, and more so in the goods actually moved. For passenger traffic we have four classes : the first, the second, the intermediate, and the third class. The facilities in the first-class and second-class compartments can compare well with those available in other countries. The facilities for third-class passengers, who of course form the majority and who contribute 90 per cent of the railway receipts from passenger traffic, are comparatively poor and have great scope for improvement.

The traffic in goods is either for internal trade or external trade. Part of this is seasonal. After the crops are harvested, large quantities of raw materials and food-stuffs have to be moved to the places of consumption within the country or to the ports for export. Thus there are periods when there is a pressure on the railway to meet the demand for movement of goods.

With the outbreak of the present war and more particularly since the entry of the Japanese into the world conflict, the pressure on Indian railway has increased considerably. Several causes have contributed to this. India's coastal shipping has been reduced to a minimum because of diversion of available ships to war work. This traffic has now to be carried by rail. The motor bus traffic, which has increased in recent years, has been considerably reduced because of petrol rationing, and this traffic also has to be carried by rail. Besides, large movements of troops and supplies for the military must have come into existence, the details of which cannot at present be had. The problem of economizing the use of wagons for carrying essential goods for civilian use, as well as for catering for the military, has become very important. Large quantities of essential articles, such as wheat, rice, and sugar to mention a few, have to be moved over large distances for civilian use. The priorities of wagons for such purposes have to come next in order to those required for the military. In consequence, severe restrictions have been imposed on both passenger and goods traffic.

In spite of this, railway earnings have been quite good, and this has been an important source of relief to the Treasury, which has to meet large items of expenditure. They have earned a net surplus of Rs. 72 crores during 1940-43, as against Rs. 8 crores during the previous triennium. This is due to the fact that the railways are credited for the services rendered to the military. The state of railway finance at present therefore reflects the great use of this means of communication for military purposes.

STATE OWNERSHIP OF RAILWAYS

Most of the railways in India are by now state property, and those few which are not yet in the hands of the state will in due course become state property. The actual management of some of the railways has been in recent years taken over by

the Government of India, and in course of time the remaining railways will also be taken over under direct state management. The general policy and questions of co-ordination are in the hands of the Railway Board which was under the Commerce Member of the Government of India till recently; and the same Member was in charge of industrial protection.

During the last few years the Member in charge of Communications has taken up Railways; a few months ago a separate portfolio of War Transport was created, and this is in charge of an English businessman from Calcutta. A brief reference to the way in which this unique example of nationalization of railways by a capitalistic government was brought about may be of interest. Railways were introduced in 1854. In order to attract British investors, a system of state guarantee of interest was adopted. In consequence there was reckless expenditure on capital account, laxity of control in running the business, and a regular loss to the revenues of India for many years. Almost till the end of last century, the taxpayer in India had to pay to make good the guaranteed interest of the British investor on his investment in railways in India.

When the extravagance of this system was at last perceived, it was given up in favor of another system, by which the state financed railways construction out of borrowed funds. The debt for this purpose was styled productive because it was expected to have an adequate yield to pay its own interest in due course. This was in contrast with the other debt, known as unproductive or ordinary debt, mainly due to the wars of the East India Company and later of the Government of India, and was a net burden on the taxpayer. In practice, revenue surpluses were transferred to capital account. To the extent of the surplus in a given year, the ordinary debt was treated as reduced and the productive debt as increased. The amount of the surplus was used for railway capital; if more was needed, loans were floated. The way in which programs of railway reconstruction were pushed and the financial arrangements in the country adjusted to suit the same from year to year was open to criticism. The amount of capital sunk in railways in India is estimated at Rs. 895 crores.

RAILWAY MANAGEMENT

Apart from the financing of railways, the question of management has been one of controversy. The companies which owned and managed the railways looked to their dividends and had no interest in a co-ordinated policy for improving the natural resources of the country. They did show concern in the trade of their own nationals, the British traders in India, which resulted in favorable rates to those articles which were the object of foreign trade either for export or import.

In the contracts of the companies with the Secretary of State for India there was a clause by which the state had the right to purchase the lines after a period ranging from 25 to 50 years. When the contracts matured, the purchase price was fixed at highly favorable rates to the original investor, and the payment was made by annuities. In all cases, however, the management was left to the company itself, even though the ownership had passed to the state. For this service the company got certain commission. This anomalous system continued the old apathy of the companies toward Indian requirements, i.e., toward arranging the railway policy so that the economic and industrial interests of the country might be advanced.

The Acworth Committee on Indian Railways (1921) recommended by a majority in favor of state management. In spite of efforts of vested interests to the contrary, the principle of state management was accepted by the Indian Legislature a few years later. Since then the lines are being taken up by the state for management as and when the existing contracts expire, the last of which will terminate by 1950.

RAILWAYS AND ECONOMIC PROGRESS

Though in normal times the capacity of the railways to move the traffic offered has been good, what has often been criticized is the policy of the railways, in the matter of rates for different types of goods. Rates for through traffic to and from the ports have been lower than those for other parts. This has resulted in the stimulation of the external trade, often at the cost of local industries. It is well known that other countries have utilized their railway systems to aid their economic progress by giving special rates to particular trades and industries which deserve encouragement. The railways in India have nothing to do with helping the economic progress of the country in this sense, because they are run as commercial concerns. This attitude is mainly the result of free trade policy which has dominated the authorities in India since the beginning of British rule. With the partial change in the industrial policy of the country in 1924, when the policy of "discriminating protection" was introduced, it was expected that the industrial policy of the state would be reflected in the railway policy. What we find, however, is that several Tariff Board inquiries of the Government of India have complained of the unsympathetic attitude of the railways, which has stood in the way of industrial progress of the country.

One would expect that the ownership and management of railways by the state in India should make it possible and easy for the Government to introduce a radical change in the railway policy to suit the industrial progress of the country. But this did not come to pass. The railway budget, which was formerly a part of the general budget, was separated in 1924, and it was decided that the railways should be run as a commercial concern or on commercial principles. By the new arrangement, after paying the interest charges on the railway debt and setting aside adequate depreciation, the surplus was to be utilized as a contribution to the General Revenues according to an agreed formula. This worked well for some years; but the Great Depression brought deficits to the railway budget, and the contribution to the general budget was not available for many years.

When the Government of India Act of 1935 was passed, on which the present constitution of India is based, the financial arrangements between the provinces and the Central Government were made dependent on the state of railway finance. A share of income tax was to be given to the provinces, but the Central Government would release the same only if it got its contribution from the railways. For some years the railway deficits were a financial handicap, because the provinces, which were in need of more funds, could not get their share of income tax.

The same act provided for the creation of the Federal Railway Authority. This body would come into existence when the Federal Government was brought into being. As federation has not materialized, this body has not yet come into existence. But the powers which this body was to exercise are in effect exercised by the existing

Railway Board. The essence of the arrangement is that the Federal Railway Authority should be independent of the Federal Legislature and should run the railway business in India on commercial principles. This reflects the old attitude which prevents this important agency of economic advancement from being controlled by the representatives of the people. The excuse of working the railways on commercial principles has been a cloak for preventing the use of railways for purposes of a forward economic policy, and also for keeping the control of the means of communication in the hands of the British for strategic reasons.

It is well known that in most countries railways are owned and controlled by the state, and the railway rates are used as one of the instruments to help the trade and industry of the country. In the United Kingdom and the United States, though the railways are not under the direct control of the state, adequate arrangement exists by which the state is able to see that the railway policy is consistent with the economic policy of the country.

The railways in India provide an important source of employment to large numbers of people, from the lowest ranks of unskilled workers to the highest technicians, as well as from the ordinary clerical workers to the highest managerial posts. In its railway department, the state is the biggest employer. The general policy of the Government of India regarding employment of Indians in other services is reflected here also. The higher posts are in practice the preserve of nonnationals; it is rarely that an Indian can find access to what may be called a key position, even if he is found and proved to be "safe," as it is commonly called in official circles. The valuable experience of higher work, both technical and managerial, is thus lost to the people of the country. The recent appointment of a British businessman as Member in charge of War Transport is significant.

SYSTEM OF ROADS

Roads in India may be divided into rural and urban. By the end of 1938 there were 19,000 miles of municipal roads and 65,000 of extramunicipal or rural roads. Some of the urban roads in India, particularly in the larger cities like Bombay, Calcutta, Madras, or Delhi, compare favorably with roads in any part of the world. The advent of motor traffic has led to the demand for improvement in roads, and this has resulted in the building of new roads as well as in the repair or modernization of existing roads. But such modern roads on which motor cars may glide smoothly are few, and can only a small area compared with the size and population of the country.

Besides such modern city roads, we have urban roads in smaller towns, or roads which connect such towns with important villages. In these areas bus traffic has been developed in recent years. In most cases bus traffic is supplementary to railways; in some cases it is parallel to and in competition with railways. This has created the problem of road-versus-rail competition, and the obvious advantages of bus traffic did affect the railways adversely to some extent. As pointed out above, however, during the war, bus traffic has been reduced to a minimum because of difficulties of obtaining petrol, and now also of obtaining trucks and spare parts, including tires. The railways have therefore to carry the traffic which was formerly catered for by the buses. After the war, however, bus traffic will again enter the field, and the question of road-and-rail competition will have to be solved. It is quite

possible to co-ordinate the services of both these agencies and eliminate competition if the bus services are regulated on well-defined principles instead of being left, as they now are, to compete recklessly among themselves and with the railways.

This does not take account of the immense rural areas in the country where modern roads are conspicuous by their absence and where a motor car is still a novelty. The old village cart driven by bullocks is the chief agency of rural transport, though in some cases this is supplemented by horse-drawn vehicles. The slow-moving bullock cart typifies the simplicity and conservatism of the rural folk, as it also reflects the state of poverty and economic backwardness in which they live. The roads on which these carts ply are in a few cases suitable for them; in most cases they are out of repair, particularly during and after the monsoon. But the majority of villages have only tracks and not roads, over which the cart must make its way jolting and with difficulty. These tracks become muddy and mostly impossible to traverse during the monsoon, with the consequence that large areas are cut off during certain parts of the year. This is a serious drawback from the point of view of agricultural marketing, and the urgency of the problem in the interests of a better price for agricultural produce simply cannot be overemphasized.

CONSTRUCTION AND MAINTENANCE OF ROADS

The work of construction and maintenance of city roads is naturally in the hands of municipalities. The roads connecting cities or towns are in the hands of the Public Works Departments of provincial governments. The rural roads are looked after by district and taluka local boards. The resources of these boards are meager and they have, besides, several other functions, such as the maintenance of schools and dispensaries, for which also they have no adequate finance. They are not, therefore, able to attend to road development adequately, with the result that the roads are quite insufficient for the needs of the trade and industry of the country.

It may be pointed out that under similar conditions, the governments in other countries have accepted the principle that road development is a national concern and hence a proper charge on national revenue. Similar was the conclusion of the India Road Development Committee (1927), and on its recommendation a Central Road Development Fund was instituted in 1929, fed by a specific surcharge on import and excise duties on petrol. The fund has as its object the construction and maintenance of roads approved by the Central Government, and is distributed in proportion to the estimated contribution, among the political units which are in immediate charge of the subject.

It is obvious, however, that the scope for development is almost unlimited in the matter of more and better roads in this country. Such developments will not only give an impetus to trade and better marketing facilities to the rural areas, but will also bring civilizing influences to the remote areas of the country which will otherwise remain backward. The development of roads and the motor car industry go together; the motor cars and buses which are used in India prove highly expensive because of the distance from which they are imported and the heavy customs duties that they have to pay. The establishment of a local automobile industry which can turn out cheap cars suited to Indian conditions will in turn create an effective demand for better roads and be able to penetrate into the remote corners of the country, spreading modern civilization.

CONCLUSION

The above review of the position of railways and roads in India shows that though some progress has been made, there is enormous scope for the proper development of the modern means of communication in this vast subcontinent. We have not touched the related problem of internal waterways, which have been neglected, or of coastal shipping, which is the subject matter of another article. What is required is a comprehensive view of the whole transport problem and a determination to solve it in such a co-ordinated manner that the cheapest and most effective transport may be available to the people of the country so as to enable them to achieve rapid progress in trade and industry on the one hand, and a closer contact with the outside world on the other. Vested interests, either foreign or local, should be subordinated to this all-pervading national need; narrow considerations of administrative or commercial principles should give way to the larger and more urgent demands of national progress. The vision necessary to conceive and implement such a transport policy presupposes the acceptance of a national economic policy, and this cannot be realized unless there is at the top a national government whose outlook and work are guided solely by the interests of the people of the country.

Why India Wants Her Own Shipping

BY WALCHAND HIRACHAND

MODERN wars have brought home to every maritime country the truth of experience that control over the seas is quite essential to the free flow of trade and the effective defence of coasts. With the geographical position of India in the East and its strategic importance, such control over the seas has become a question of life and death. It is necessary not only for stemming the tide of enemy aggression against India, but also for enabling the United Nations to reconquer the countries which the enemy has now occupied. India cannot, however, have such control over the seas unless she has a large and powerful navy maintained and equipped in a manner to meet all the complex requirements of modern war. It is, however, a paradox of British rule that India does not possess and is not allowed to possess any navy worth the name. A few sloops, a few patrol vessels, and a few mine sweepers do not constitute a modern navy.

VAST MARITIME TRADE

Apart from the paramount need for a navy of defence and a navy of supply for India, with her strategic position and her potential strength for maintaining peace, her large maritime trade and national economic needs have increased the responsibility for the building up of a large mercantile marine owned, controlled, and manned by her own people. India has a coast line of nearly five thousand miles. It is studded with a number of important ports. More than 6,000,000 tons of cargo and more than 2,000,000 passengers are annually carried on her coasts. Her overseas trade exceeds 25,000,000 tons per year. Nearly a quarter of a million passengers are annually carried in that trade. Her annual maritime trade exceeds fifteen hundred million dollars in value.

With such a vast volume of cargo and such a large number of passengers available for carriage on the seas year after year, it is a matter of the deepest disappointment that India has no mercantile marine of her own in her overseas trade. National ships are allowed to carry only 24 to 25 per cent even of her coastal trade—and that, too, after a life-and-death struggle of nearly half a century. Every maritime country has reorganized its coastal trade as its own domestic preserve. No outsider is allowed to enter this coastal trade as a matter of right. India, unfortunately, has been made by Great Britain an inglorious exception to this principle recognized all over the world. British shipping has been encouraged in every way to dominate India's coastal trade.

Indian shipping has been ruthlessly kept out of India's overseas trade, which has been allowed to continue as the practical monopoly of British shipping. The result is that despite the severe struggles of past decades India has not been able to build up a mercantile marine worthy of her position and adequate to meet her large and growing requirements. It is therefore necessary to examine the forces and circumstances which have hitherto succeeded in frustrating her efforts to do so and to consider the steps which India will have to take to remove them in the future.

HAS ENTERPRISING SHIPOWNERS

A country which aspires to build an efficient national mercantile marine must have enterprising shipowners, brave seamen, and skillful shipbuilders. No one, however, can deny that India had all these categories in abundance in the past and has them in large numbers in the present. Indian shipowners do not lack that spirit of adventure and enterprise which is necessary for the building up of the shipping industry. It is well known that her ships in the past used to sail on far and distant seas. From the latter half of the last century up to now, more than 102 Indian shipping companies came into existence, having a total nominal capital of more than \$150,000,000. A large number of them were, however, driven out of existence as a result of the hostility and unfair competition of British shipping interests. It is estimated that the actual capital lost in twenty companies came to about Rs. 7 crores. Nearly twenty-four shipping companies went into liquidation. There can be no dispute that all this was mainly due to the hostile attitude of the British shipowners. Even Sir Alfred Watson, late editor of the Calcutta English daily, *Statesman*, admitted in his evidence before the Joint Select Committee of Parliament that "Indian company after Indian company which endeavoured to develop a coastal service has been financially shattered by the heavy combination of the British interests."

There can be no doubt that India's sons did not and do not lack the sense of the sea. Without the help of modern instruments, they navigated their ships on far-distant seas in the past. Thousands of India's sons have been manning, for over a century now, the British ships which sail to all parts of the world. These seamen have braved the perils of the sea in the past and are braving them again today. They have shown, and are showing, wonderful courage, great resourcefulness, increasing initiative, and the utmost power of endurance under the most trying circumstances at sea in the discharge of their duties. The work of Indian seamen at sea, both in times of peace and of war, received the highest praises from most competent authorities during the last war and are receiving them again during this war.

INDIAN-BUILT SHIPS FAMOUS

As regards shipbuilding, Indian ships were famous centuries ago for their elegance, workmanship, and utility. Even England had to recognize in the past the greatness and superiority of the Indian shipbuilding industry and had several ships built in Indian shipyards. The competitive strength and the economic efficiency of the Indian-built ships aroused the wrath and the jealousy of the British shipbuilders and the British people, and they took effective steps to bring about the ruin of this old and famous industry of this ancient country. Dr. Taylor, the well-known historian of the nineteenth century, observes in a famous passage in his book, *Ancient and Modern India*, that

the arrival in the port of London of Indian produce in Indian-built ships created a sensation among the monopolists which could not be exceeded if a hostile fleet had appeared in the Thames. Shipbuilders of the port of London took the lead in raising the cry of alarm. They declared that their business was in danger and that the families of all the shipwrights in England were certain to be reduced to starvation.

It is an irony of fate that England, who proclaims from the housetops the slogan about the freedom of the seas, decreed that Indian-built ships should not be accepted on the British Register and that no cargo should be carried between India and England in Indian-built ships. Mahatma Gandhi has rightly observed: "Indian shipping had to perish so that British shipping might flourish." In the same way, the Indian shipbuilding industry had to perish so that the British shipbuilders could live and flourish. Attempts have been made by the great national shipping company, the Scindia Steam Navigation Company Ltd., to revive the shipbuilding industry of India in its modern form. Lakhs of rupees have been sunk by this company in its shipbuilding yard. The company realized that India was urgently in need of ships and was ready to play its part immediately in building them. The company was not alone in realizing the supreme need of a shipbuilding industry in India. Even the flag officer, Admiral Sir Herbert Fitzherbert, appealed to all concerned in his broadcast talk in August 1940 and observed:

I would like to mention also another subject vital to India's progress and having a close relation to our naval needs. It is the shipbuilding industry. At the present moment, no such industry exists although, as everyone knows, in the past India's shipbuilding industry was world-famous. It is obvious to me and I think to a great many other people that the sooner a shipbuilding industry is started the better for India. Such an industry to be successful needs courage, enterprise, and forethought. That all these are present in India is a fact that cannot be denied.

It is, however, a matter of the deepest humiliation for us that, despite the appeal of the Admiral and the readiness of the national company to build ships at its own expense, shipbuilding in India was not considered a war effort. India today, after over three years of grim war, has not been able to build a single modern ship in her own shipbuilding yard. While the National Governments of Australia and Canada have awakened to their sense of responsibility and have developed their shipbuilding industry with a rapidity which has earned encomiums from all quarters, not only has the Government of India done nothing to encourage the Indian shipbuilding

industry but, on the other hand, it has put all possible hindrances in its path—a fact which has aroused the justifiable indignation of all nationally minded Indians in this country.

It will be clear from the facts mentioned above that India has today all the elements necessary to build up both a navy of defense and a navy of supply, namely, enterprising shipowners, brave seamen, and skillful shipbuilders. What is it, then, that effectively prevents India from building up such navies which are necessary in the common interests of India and the United Nations? There could be one, and only one, answer to this question. It is the anti-Indian policy of the British Government. It is the hostile attitude of the British shipowners. It is the absence of a national government in India. These are the forces which have been responsible for keeping India without an effective navy of defense and without an adequate navy of supply.

ATTITUDE OF GOVERNMENT OF INDIA

In 1918 the Central Legislature passed a resolution for the encouragement of a shipbuilding industry in India. In 1924 the Indian Mercantile Marine Committee, appointed by the Government of India, urged the Government to establish as well as to encourage the starting of a shipbuilding industry in the country. The Government of India took no action whatsoever either on the resolution of the Legislature or on the recommendation of the Committee. Although the principle of the reservation of the coastal trade of India to Indian ships was accepted by an overwhelming majority in the Central Legislature, the Government of India, with a view to helping the British shipowners to continue to dominate and to exploit India's maritime trade, completely ignored its responsibility to the people of this country; it not only failed to implement even the moderate recommendation of the Committee, but it did not take a single step to protect, to assist, or to encourage such Indian shipping as Indian enterprise has been struggling to build up and keep alive in this land. The argument which its spokesman, Sir Charles Innes, the then Commerce Member of the Government of India, advanced against the reservation of the Indian coastal trade to Indian ships completely ignored and totally belied all the lessons which the last war had unfailingly taught and the present war is re-inculcating. Sir Charles Innes had then observed :

Why then have other countries, other nations, thought it necessary to reserve their coasting trade? It is because they thought that in the long run it would pay them to take that course in the interests of their own safety. They had to take that course because in times of war they might want their own mercantile marine to feed their people and because they wanted that marine as a second line to their own navy. All I need say on that point is this, that India is fortunate in that that overmastering necessity is not present in this country.

These observations of Sir Charles drew forth an effective retort from the late Mr. Narottam Morarjee, one of the pioneers of Indian shipping. He exclaimed:

What a consolation! When India asks for self-government, she is told "first learn to defend your country and then ask for self-government." When India, however, wants to build up her shipping, she is requested not to worry about it as the British Navy is always there to defend her stores! India knows to her cost and the United Nations know it also how the absence of a real Indian navy and an adequate Indian mercantile marine has affected the war

situation in the East. It was only the other day that even the Commerce Member of the Government of India admitted the truth when he remarked: "But one cannot help feeling that had adequate steps been taken in time to promote the development of an Indian mercantile marine and an Indian navy, our country would have been in a position to play a much larger and a more effective part in overcoming Axis aggression."

The temptation to exploit India's maritime trade for the benefit of British ship-owners and British merchants has, however, proved so irresistible for the British Government that even the danger created by Axis aggression in the East has failed to make it realize its larger obligations for allowing India to build up her navy of supply and navy of defence in the common interest of all. This continuance of the anti-Indian policy of the British Government further led the Commerce Member of the Government of India to say publicly during the speech referred to above: "I hope the lessons of this war will not be lost upon us and that every effort will be made to help to develop Indian shipping and shipbuilding industry."

TRADE AGREEMENTS

The claims of national shipping for its natural expansion have been recognized, in modern times, as forming a vital part of a trade agreement which one country makes with another. Russia agreed to use the services of British shipping in the Anglo-Soviet Agreement which she made with Britain in 1934. A definite percentage of Russian exports, it was agreed, should be carried in British ships on a remunerative basis. Lord Templemore, speaking on behalf of the Government in the House of Lords, stated in November 1936 that the trade agreement made between England and Italy was likely to be of "considerable assistance to British shipping." The Empire Trade Committee passed a unanimous resolution in July 1936 urging the Government of the United Kingdom to "give in all treaty arrangements special attention to the protection of the mercantile marine." Lord Essendon made a strong appeal in the House of Lords in November 1936 for utilizing the trade agreement between India and Japan for securing preference for British shipping in the maritime trade between India and Japan. It will, therefore, be clear that Great Britain has been utilizing every occasion for a trade agreement for furthering the cause of British shipping.

It is natural that India should urge the Government of India to utilize the opportunity of a trade agreement which India may make with another country for advancing the cause of her own mercantile marine. When the question was taken up in the Central Legislature, the Government of India remarked that the "Government has consistently acted on the principle that Indian bargaining power should be used for the furtherance of Indian interests" and added that "the needs of Indian shipping were borne in mind by the Government of India during the Indo-Japanese trade negotiations and are being borne in mind during the present Indo-British trade negotiations." It was very painful to find the Government of India going back upon these very assurances and stating in the Indian Legislature in August 1938 that

the negotiations between the Government of India and His Majesty's Government in the United Kingdom are limited in scope to a discussion of tariff preference and other arrangements for the expansion of commodity trade between the two countries.

Thus the principle which the British Government had consistently followed and implemented in her own case was thrown overboard in the case of India, and the British Government declined even to discuss the question of Indian shipping during the course of the negotiations for a trade agreement between India and the United Kingdom. Whatever Britain considers fair and just for herself, she looks upon as unacceptable and inequitable for India. Thus the anti-Indian feeling of the British Government effectively and continuously militates against all enterprise and efforts of Indians to build up a national mercantile marine in this country.

EFFECT ON NATIONAL ECONOMIC POLICY

A national mercantile marine plays a vital part in shaping a country's national economic policy. The services of national shipping constitute an important item of a country's invisible exports and thus enable it to adjust its trade balances. Moreover, the policy of fixing rates of freight effectively influences the development of industries at home and successfully opens up markets for national products abroad. Such a national economic policy can be effectively formulated only for the benefit of a country which has its own national shipping. British shipping, for example, has not only helped Britain by its services to adjust its trade balances, but has also enabled it to open up markets abroad for the consumption of its manufactured products. The contribution made by British shipping towards such adjustments has amounted to nearly one hundred million pounds per annum in recent years. Such a large annual contribution undoubtedly plays an important part in Britain's national economy. India can achieve nothing in this direction, as it has no mercantile marine of its own worth the name. Although the annual freight bill in India's maritime trade would, in normal times, exceed the sum of fifty million pounds, India's share of this vast amount is almost negligible. This enormous freight bill does not add to the national wealth of the country. As India has no adequate national navy of supply, the largest part of this vast annual freight bill is drained year after year out of the country. It is the British shipping interests and it is the British people that benefit by this large annual drain from India because it is British shipping that dominates India's maritime trades.

As there is no national shipping in India's overseas trade, the Indian exporters and importers have found it extremely difficult in the present situation to secure shipping space for their requirements from the British Ministry of War Transport. They have, therefore, found it difficult to maintain their position in the trade which they have built up with foreign countries. On the other hand, the United Kingdom Commercial Corporation, financed by the British Treasury, readily obtains from that Ministry all the shipping space it requires, and is therefore able to oust Indians from the export trade which they have built up in the past at considerable sacrifice. Had there been an adequate national navy of supply in India, the interests of India and Indian traders would not have suffered as they have during the present war. All these facts and circumstances only strengthen our deep-rooted conviction that India's trade, India's industries, and India's national economic needs will receive an irretrievable setback unless active steps are promptly taken for building up a large and adequate mercantile marine owned and controlled by Indians themselves.

GOVERNMENT SUBSIDIES

Britain often has professed that she has built up her great shipping industry without any financial assistance from the state. She also wants the world to believe

that it is she who has really stood for and acted upon the principle of freedom of the seas. Space forbids my exposing fully the hollowness of these contentions. I may, however, mention a few salient facts to show that Great Britain does not always practice what she preaches. Every schoolboy knows how England advanced the cause of her own shipping by the Navigation Laws which remained on her statute book for nearly two hundred years.

Cheap loans, subsidies, and financial assistance in various forms have been given by the British Government to British shipping from time to time. Over twenty-three million pounds were given as loans under the Trade Facilities Act alone, after World War I. The Board of Trade was authorized to advance up to nine and one-half million pounds under the North Atlantic Shipping Act. Over four million pounds were given as subsidy to tramp shipping. Over two million pounds were given as help under the Scrap-and-Build Scheme. Subsidies given for building ships and subsidies given to the Cunard Steamship Company exceeded more than half a million pounds.

In addition to vast amounts mentioned above, given by way of financial help to British shipping, the British Shipping Assistance Bill of 1939, which had to be suspended owing to the outbreak of the war, provided financial assistance in a variety of forms aggregating the colossal figure of over thirty-eight million pounds. In a memorandum issued on August 6, 1940, it was announced by the British Government that

the progress of legislation [British Shipping Assistance Bill, 1939] was interrupted by the outbreak of the war, but the necessity of maintaining the British mercantile marine in adequate strength [mark the words] and in a position of full competitive efficiency [mark the words] is recognised no less strongly by the Government today. They will, therefore, keep this question constantly in mind as one which will be necessary to ask Parliament to deal with in due course.

When Britain has given, and promises to give, financial assistance to her highly developed mercantile marine, it is a matter of singular misfortune for India that her Government does not find it possible to give any financial assistance for the further development of its meager mercantile marine. Moreover, the provision in the Government of India Act that British ship must be considered as an Indian ship in practice, and that that ship will be entitled to all financial help which the Government of India may think it necessary to give to an Indian ship, offends not only against all sense of justice and fair play but constitutes a grave act of tyranny of England over India. The position of Great Britain in the world of shipping is unassailable. It is, therefore, difficult to understand why Great Britain is so deeply hostile to the development of national shipping in India, particularly when the maritime trade of the United Kingdom is only five and onehalf times that of India while the merchant shipping of the United Kingdom is one hundred and thirty-five times larger than Indian shipping.

The part which the ships of Britain play in the carriage of different trades as contrasted with the part played by Indian ships in carriage of those trades is both significant and instructive. While the ships of the United Kingdom carry 92.8 per cent of the inter-Empire trade, 47.5 per cent of the foreign trade of the Empire, and 12 per cent

of the trade between foreign countries, Indian ships have no place whatever in those trades. Even in the coastal trade of India, while British carry 75 per cent of such trade, Indian ships, after a struggle of half a century, have been able to carry only 25 per cent of such trade. Why does Britain, therefore, still carry on its policy against the development of a navy of supply owned and controlled by the nationals of this country? The answer to such a question is to be found in the admission made by Churchill that he was not called upon by his King to be his first Minister to assist in the liquidation of the British Empire.

Walchand Hirachand is president of the Indian National Steamship Owners Association and chairman of the Scindia Steam Navigation Company, Ltd. He has served on numerous Indian commercial bodies, and is one of the largest employers in India. He has been vice-president of the International Chamber of Commerce, Paris, since 1934. He was a member of the governing body of the Imperial Agricultural Research Council for five years; employers' delegate to the International Labor Conference at Geneva, 1932; and leader of the Indian delegation to the Congress of the International Chamber of Commerce on several occasions.

Indians Overseas

By P. KODANDA RAO

THE status of Indians overseas has a significance far greater than their numbers may warrant. It vitally affects the self-respect of India. It is influenced by three factors: India is not an independent sovereign country, though she is an original member of the League of Nations; India's nationals are "colored" and not "white"; and Indian emigrants during the last century and over consisted largely of unskilled laborers. Though the pattern varied with each immigrant country and with the passing of time, it is possible here to deal only with the general and current trends, touching only lightly on other aspects, historical or special.

The total Indian population overseas has recently been estimated at about 2,575,000. Of these, about 2,471,000 were in the British Empire, including the Dominions and the colonies, and about 104,000 in foreign countries, including the United States of America. Among British colonies, Malaya had 755,000; Ceylon 683,000; Mauritius 261,000; Trinidad 154,000; British Guiana 142,000; and Fiji 90,000. Among British Dominions, South Africa had 200,000; Australia 24,000; Canada 1,500; and New Zealand 1,200. Among the colonies of foreign powers, Dutch Guiana had 38,000 and Dutch East Indies 28,000. The United States had nearly 5,900.

HISTORY AND DIVERSIFICATION

Indian emigration has a long history, the origins of which are lost in the dim past. It would appear that in ancient days it was more of culture and civilization

than of labor or capital. Buddhism in China and Japan, and Hinduism in Bali bear testimony to the wide reach of the early emigration. It seems to have been largely impelled from within rather than induced from without. But modern Indian emigration, dating from the beginning of the nineteenth century, was largely of labor. It was more induced from without than impelled from within. Unskilled laborers were for long in the habit of visiting Ceylon and Malaya as early as A. D. 1800. The abolition of Negro slavery in the British Empire in 1834, and in other European empires subsequently, created an imperative demand for labor to replace the emancipated Negro labor in certain of the tropical colonies. India was tapped for the purpose. Unskilled Indian laborers were recruited by organizations set up by the employers abroad, with the consent of the Government of India. The indenture was for a term of five years, at the end of which the laborers were to be repatriated to India ; but very often they were induced to reindenture and even to settle down permanently. Thus, what was originally conceived as a short-term labor migration led subsequently to permanent settlement of some of the immigrants. In course of time, there grew up a body of Indians who were born in the colonies and who came to be known generally as "colonial-born," as distinguished from the "home-born." With the tapering off of Indian labor immigration since the commencement of the present century, and the repatriation or death of the home-born, there has been a gradual shift in the relative proportions of the two groups. Today in most countries the colonial-born preponderate. They have interests more in common with other elements of the local populations than with India.

As the indenture system contemplated recruitment of unskilled labor for short periods abroad, it was at first confined largely to men. With reindenture and permanent settlement, maladjustments arose for want of family life for the immigrants. Later recruitment was extended to women. Women emigrants, however, were limited to roughly one-third the number of men emigrants, and were picked at random to satisfy the prescribed ratio. Though the emigrants consisted of both men and women, they were still unrelated individuals and not families selected for settlement or colonization. Normal family life became difficult, and this led to grave social evils, including sex crime, murders, and suicides. Subsequently, wives and minor children were permitted to join the men. The sex proportion between boys and girls among the colonial-born was normal.

Though at the start Indian immigrants were homogeneous in the sense that they were laborers, there has since been an evolution towards normal economic diversification. The children and grandchildren of the early settlers have adopted other and varied occupations and professions, though the bulk are still, as in every other country, laborers. Among Indians abroad today there are doctors, lawyers, teachers, merchants, landholders, cultivators, skilled and unskilled workers, clerks, and officers, and in some countries members of legislatures and even of executive councils.

Indian emigration was not confined to indentured laborers. Free emigrants consisted largely of merchants, with a sprinkling of lawyers, teachers, and doctors. Some of them became permanent settlers ; others were migratory, going to and fro.

SOCIAL AND ECONOMIC CONDITIONS

If a generalization be permissible, it may be said that Indians overseas are economically worse off than corresponding categories of white peoples in the colonies, though better off than corresponding groups in India. Inasmuch as the justification of all emigration is betterment, Indian emigration has achieved this purpose. But the lower status of Indians abroad compared with local white populations is largely due to racial discrimination practiced by the whites, who control political power. Indians are still denied equal opportunities with the whites in educational, economic, and social matters. Generally speaking, Indians overseas are treated by the local whites as untouchables are treated in India or Negroes are treated in the United States.

Even in colonies where Indians have been settled for over a century, there has been but little racial mixture or miscegenation. They have, on the whole, maintained their racial integrity, not only as between whites and Indians but also as between Indians and other colored peoples.

Indian emigrants and their descendants have, on the whole, maintained the integrity of their religions—Hindu, Moslem, or other. Comparatively few have changed over to Christianity, the only proselyting religion which was presented to them by European Christian missionaries. Considering the circumstances, this is rather remarkable. The Indian laborer, as recruited in the villages of India, was generally illiterate, uneducated, and abysmally poor and underprivileged in every sense. He was transported thousands of miles away and planted among people who, whatever their races, were Christian in religion. He had no teachers of his own religion to hold him fast to it. Every influence that was brought to bear on him was Christian. His employers were Christian. The schools which the colonial-born attended were, in several colonies, conducted by European Christian missionaries who were ardent proselyters, not unwilling to stretch a point or two in favor of what they considered a good cause. The moral, material, racial, and financial prestige and the resources of the colonial governments, the personnel of which was Christian, formed the background of the Christian missionary endeavor among the non-Christian Indians. Nevertheless, the conversions to Christianity were comparatively few.

In the last few decades some Hindu and Moslem preachers from India have visited their coreligionists overseas, and have in some cases contested the monopoly of European Christian missions in the matter of education and religious teaching.

Some governments which officially professed religious neutrality, nevertheless handed over the responsibility for the education of Indians to European Christian missionary bodies and gave them financial grants-in-aid from revenues to which all taxpayers, including the non-Christian, contributed. The grants were often large enough to cover the entire expenditure incurred by the missions. In one instance, the government made an additional specific grant for Christian proselytism among Indians. This is in striking contrast with the policy followed in the United States, where taxes, raised even from Christians, are not used to subsidize Christian religious instruction in private schools, much less proselytism to Christianity.

Almost everywhere, educational facilities for Indians are inferior in range and quality to those for whites. Where primary education is free and compulsory for whites, Indians who seek it have to pay for it. In one instance, moneys specifically

granted for Indian education was in part diverted for the education of the whites, notwithstanding that the initial grant for the education of a white child was more than three times that for the Indian child.

POLITICAL STATUS

The political status of Indians settled in British Dominions and colonies varies considerably. It is perhaps best in New Zealand and worst in South Africa. In the former, Indians are on a par with the white population, and suffer no legal disabilities. They share the same political franchise and social security benefits, like old-age pension, and so forth. In Australia, Indians are on a par with the whites in most matters as in New Zealand, except that they are subject to a few legal disabilities, which, however, are not very material. In Canada, Indians are concentrated in the province of British Columbia, and there they have no political franchise and are debarred from engaging in certain occupations, like law, pharmacy, public works, and others. In other provinces of Canada no such discriminations exist, but there are hardly any Indians to benefit thereby.

In South Africa, the province of Natal has about 184,000 Indians, Transvaal about 26,000, and Cape of Good Hope about 10,000. Indians have no political franchise, except to an insignificant extent in Cape of Good Hope. In the Transvaal the right to hold or occupy property is largely restricted to certain locations or reservations, and these restrictions, if followed, would be very oppressive. Discriminations and denials based on race are most striking in South Africa. The racial policy is one of repression, segregation, and repatriation.

In the British colonies of Kenya and Fiji, Indians have the political franchise but are not enrolled on a common register with other racial elements. They are enrolled in a separate register, and vote only for Indian representatives in the legislatures. The number of such representatives is disproportionately small. The purpose of the electoral system is to keep down the political influence of Indians without denying it to them altogether. This is done even in cases where the British Government has official and nominated majorities in the legislatures to defeat the combined vote of nonofficial elected members, Indian and other. The disproportionately large representation given to nonofficial whites helps to uphold the racial prestige of the whites.

In the British colonies of Trinidad, British Guiana, and Ceylon, Indians have the political franchise and are registered in common electoral rolls with other racial elements. Except in Ceylon, the common electoral roll has promoted greater harmony and engendered less friction between the racial elements, while separate rolls elsewhere have tended to create racial antipathies and disharmonies.

MIGRATION LAWS

With the extension and consolidation of the British Empire in the Victorian era, the theory of imperial citizenship, of freedom of subjects of the Queen to migrate to and settle in any part of the Empire, was accepted as a natural corollary and highly prized as the cement that would bind together the far-flung Empire, consisting of different races and creeds. But in recent decades the British Dominions, led by South Africa, denied imperial citizenship. British statesmen were unwilling to denounce the inspiring theme of imperial citizenship, but were unable to resist the demand of the Dominions to exclude Indians along with other Orientals. They therefore urged that

the Dominions which wished to exclude Indians should do so without formal avowal thereof. Indians were to be excluded by administrative rather than statutory provisions.

All Dominions have, by administrative maneuvers, effectively excluded Indian immigration for settlement, though their immigration laws are of general application. The South African law gave discretionary power to the Minister of Interior enabling him to exclude any person deemed undesirable by him, and it was clearly understood that Indians, as such, were undesirable. The Australian law prescribed a dictation test in a language selected by the immigration officer at his discretion. By selecting a language which the would-be immigrant did not know, he could be excluded. Here again, it was clearly understood that the language test was to keep out Indians. Canadian law prescribes a continuous voyage in the same boat from the port of embarkation to the Canadian port of disembarkation. As there was no through steamship service between India and Canada, Indians were effectively excluded. When in 1915 some Indians made a continuous voyage in a specially chartered boat from India direct to Vancouver without change of boat en route, and thereby fulfilled the requirements of the law, they were not allowed to land, but were sent back to India.

At the Imperial Conference of 1921 the autonomy of the Dominions to control the composition of their nationals was confirmed. India was also free to exclude the nationals of the Dominions and the nationals of England. But her political subordination to England severely limited the use of that power. India has been permitted to take power to impose on the nationals of the Dominions restrictions similar to the ones imposed by them on Indian nationals. India was, however, given power to reciprocate but not to initiate racial discriminations. India has so far not exercised the power. She cannot discriminate against English nationals because England does not discriminate against Indian nationals. In any event, England has to sanction such discrimination, and she is not likely to do so. India may not retaliate against the Dominions because few Dominion nationals immigrate to India. Retaliation against South Africa would only expose the fairly large number of South African Indians to the reprisals of that government. Reciprocity in racial discrimination is practically unilateral. India would any day prefer the common and equal citizenship of all races to reciprocity in racial discriminations.

In the British colonies, under the control of Britain, there is at the moment no legal restriction against immigration from India, though in several of them there is an increasing demand for such restriction. The Dominion of South Africa went further in this respect; it not only prohibited Indian immigration but also actively encouraged the repatriation to India of Indians in South Africa, both Indian-born and colonial-born. There was a time when South Africa begged for Indian immigration; its present ideal is to see the last Indian out of the country, if possible.

India is opposed to the imposition of restrictions on Indian immigration by other countries, particularly members of the British Empire. It is humiliating to hear that her nationals should be considered undesirable and excluded. If Indians are not wanted elsewhere, it will be a lesser hurt to her self-respect to impose restrictions on emigrations from India. It will be recalled that Canada and the United States prohibit in terms Chinese immigration. China feels it a humiliation. Japanese

immigration, equally unwelcome in Canada and the United States, is regulated by Japan herself under a gentleman's agreement.

GOVERNMENT OF INDIA AND INDIANS OVERSEAS

The interest in Indian emigration of the Government of India, which has been controlled by the British Government, grew *pari passu* with the increase in the extent and complexity of the problem. At first, the Government, dominated by the Victorian theory of laissez faire, concerned itself in seeing that the ignorant and illiterate Indian recruit understood the terms of the indenture he was putting his thumb impression to. Subsequently, it took interest in matters concerning transport, conditions of service in the countries of immigration, repatriation, and permanent settlement. It soon realized that the parties to the indenture were very unequal, that the illiterate and poverty-stricken Indian laborer had no realistic understanding of the conditions under which he was agreeing to serve in distant lands under masters who differed from him in race, religion, and language, in social, economic, and political status, who were used to commanding Negro slave labor, and who were strangers to the history and culture of India. Moreover, what was intended to be a short labor migration resulted in permanent settlement and a growing Indian population born abroad and with no constant contact with India.

The results of the indenture system, which replaced the slave system largely only in name, were so adverse that it was abolished in 1915. In order to enable the Government of India to discharge its responsibilities towards the Indian emigrants and their descendants abroad, it appointed its own agents in South Africa, Ceylon, Malaya, and Burma. It has been desirous to appoint agents in other countries as well, but has so far not been successful. It may be mentioned, in passing, that the agents of the Government of India at Chunking and Washington stand on a different footing; they correspond to officers of the diplomatic service. The Indian High Commissioner in South Africa may be said to combine both functions.

In 1922 the Government took power to control emigration of unskilled labor from India. At the time of writing (August 1942), all such emigration has been prohibited. This restrictive policy was partly intended to protect the standard of living of Indian laborers already in the colonies from being lowered by the fresh immigration. It was partly due to the growing feeling among the non-Indian peoples in the colonies against Indians. It was partly a protest against discriminations imposed on Indians settled in the colonies.

INDIA AND THE UNITED STATES

In the United States, Indians are generally called "Hindus" irrespective of their being Hindus by religion, apparently to distinguish them from American Indians. Most of the permanently settled Indians are to be found in California, where they suffer from certain discriminations in common with other Orientals. For instance, they may not own land.

As regards immigration and naturalization, India also figures in the quota system of the United States. India's quota is 100. But no Indian can enter under this system, for entry is limited to those who are eligible to citizenship in the United States, as defined in 1924. And under the Constitution of the United States, citizenship is open to "black" and "white" and no other. The Supreme Court

held in the test case of Bhagat Singh Thind (261 U. S. 204) that Indians were neither black nor white, and therefore ineligible to citizenship. Citizenship is, of course, acquired by Indians born in the United States. There seem to be over 400 of such persons. In 1935 citizenship was extended to all aliens ineligible to citizenship who had enlisted in the defense forces of the United States in the First World War. It is noteworthy that the very Mr. Bhagat Singh Thind who was denied citizenship by the Supreme Court in 1923 on the ground that he was neither white nor black, was granted citizenship in 1935 as a war veteran!

Unlike the British Dominions, the United States does not permit the introduction of wives and minor children of Indians domiciled in the United States, so that in the course of time the Indian element is bound to disappear.

Merchants of a country with which the United States has a treaty of commerce and navigation are free to enter the United States and introduce their wives and minor children as well. The United States has such treaties with China, Japan, Thailand, Liberia, and Borneo, but not with India. Indian merchants are therefore at a disadvantage as compared with the merchants of those countries. On the other hand, the merchants of the United States have a specially privileged status in India. Under the Convention of Commerce of 1815 between the United States and the United Kingdom, which provided for reciprocal liberty of commerce between the two countries, the United States was given most-favored-nation status in India, but without a reciprocal status to India in the United States. (The convention of 1815 was being revised in 1936 as between England and the United States. It is not known whether the status of India has been improved.)¹

India seems thus to occupy the most inferior status in the eyes of the United States. This is apparently due, at any rate in part, to unfavorable opinion of Indians prevalent in some influential quarters in the United States. For instance, the Special Report of the State Bureau of Labor Statistics, California, dated January 6, 1919, said that "the Hindu has no morals" and was "the most undesirable immigrant." Hon. Denver S. Church, speaking in the House of Representatives on August 20, 1914, said, among other things:

Heretofore, the most terrible of all the Hindu Gods was the crocodile, and in order to appease the wrath of these scaly and saw-teethed monsters loving but superstitious mothers cast from the banks of the Ganges their helpless offspring into the crocodile's mouth. . . . With these ideals in view it is plain that the ideals of the Hindu will not fit the notions of the West.

The exclusion of the Indians from the United States was also justified in 1919 on the ground that the Hindus, "although subjects of the British Crown, are denied citizenship by practically all British colonies, in fact, they have been forced to leave Canada, Australia, New Zealand and South Africa."

THE PROSPECT

Reviewing the present situation, it may be said that Indians overseas are better off than corresponding categories in India, but worse off than corresponding categories of the whites in the countries of their permanent settlement. Indian emigration is

¹ EDITOR'S NOTE—The Trade Agreement between the United States and the United Kingdom of November 17, 1938, which presumably is the revision here referred to, does not include India. India is placed on a par with the Dominions, Southern Rhodesia, Burma, and Newfoundland in this connection.

being discouraged, if not prohibited, from both ends. More and more countries are closing the door to Indian immigration. Increasingly India is closing her door to Indian emigration. Among the principal factors which have contributed to these results are, as has been mentioned at the outsee, India's dependent status, the colored racial character of her nationals, and the fact that the bulk of her emigrants have been unskilled coolies.

Nowhere is the consequence of India's dependent status more observable to her disadvantage than in South Africa, particularly in Transvaal and the Orange Free State. Discrimination against Indians in these places when they were Boer Republics was one of the reasons which England urged in justification of the Boer War. After they were incorporated into the British Empire following the Boer War, the discriminations continued unabated. As the status of South Africa rose from that of a colony to that of a Dominion under the Statute of Westminister, England's championship of the rights of Indians declined to a vanishing point. Independent Japan has a better status than dependent India in South Africa, as in Canada and the United States; but recently the prospect of India's attaining Dominion status has had its influence even on South African statesmen, some of whom have said that the status of Indians in South Africa could not remain stationary while the status of India was rising.

The economic status of Indians overseas is no longer uniformly that of unskilled laborers. There has been an evolution towards the normal diversification of occupations and professions. The handicaps of the coolie status have diminishing justification.

The handicap due to race is the least susceptible to change. All colored races, and Indians among them, suffer in the esteem of the whites all over the world, including the United States, where the Negroes in the South and the Orientals in the West are subjected to racial discriminations and deprivations.

Most high-ranking white authorities defend or explain the exclusion of the Orientals not on the ground of race but on that of economics. The whites have a higher standard of living than the Orientals, and in order to protect the former, the immigration of the latter has to be prohibited. A racial solution is being applied to an economic problem. There is a presumption here that individuals who are homogeneous with reference to their race are also homogeneous with regard to their economic status. This is a fallacy. Individuals racially homogeneous are economically heterogeneous, even as individuals economically homogeneous are racially heterogeneous. Indians, who number some 400 millions, do not all have the same economic status, even as the 130 millions of Americans do not all have the same economic status. There is no economic justification for excluding an Indian maharaja, even as there was none for refusing H. H. the Aga Khan a piece of land in the Kenya highlands because he was an Indian. When it is increasingly realized that economic problems need economic solutions and not racial ones, the handicaps of Indians because of their race will diminish, and their status will improve.

P. Kodanda Rao is a senior member of the Servants of India Society. He was private secretary to the president of the Society, the Right Honorable V. S. Shrinivasa Sastri, P. C., C. H., LL. D., for over a decade. He has traveled widely to study the conditions of Indians overseas. He assisted Mahatma Gandhi in his anti-untouchability campaign. He is author of East vs. West—A Denial of Contrast, and several papers and brochures.

War and Indian Political Outlook

By K. M. MUNSHI

ON September 3, 1939, when Britain declared war on Hitlerite Germany, India with its seven out of eleven provinces governed by the Congress ministries was pro-British, anti-Fascist, pro-Democratic, anxious to fling itself into the War. In October 1939, Mahatma Gandhi, the one man who in spite of British propaganda to the contrary represents India, expressed willingness to let the Congress fight the war whole-heartedly, without any change in the constitutional machinery, if the war aims with regard to India were defined and representation given to the Congress on an adequate basis in the present Viceregal Council. On November 4, 1939, the Congress Ministries in the provinces resigned, parting company with the British on account of the latter's failure to take India into partnership in the conduct of the war. Today, the whole country is anti-British, apathetic to the war and averse to co-operation in the war effort.

Before this extraordinary and unfortunate change is understood, its background, generally not understood by the foreign public, must be appreciated.

Geographical determinants have made India one country with its economic resources so spread over as to make every part of its interdependent. For the last three thousand years there has been a continuity of tradition—religious, literary, and social—which has moulded the life of the country into a great harmony. In every sphere—intellectual, moral, artistic, educational or political, Indians had been on a par with, if not in advance of, the most civilized part of the rest of the world, till the British gained control of India. Since the seventh century B. C. India had an imperial tradition of its own which is looked up to by song, myth and tradition as representing the unity and greatness of India. Though in fact the whole or the bulk of the country was never for long under single rule, there had always been one or more monarchs in the country whose dominance entitled them to be called Emperors of India, thus focussing the sense of political unity in the country. About the beginning of 1500 A. D. the Moghal invaders established an empire in India which was national in character, being based on the support of Hindus as well as Muslims; and Emperor Akbar, the greatest of Moghal emperors, is even now looked upon as a national hero by both the communities. On the break up of this empire in about 1675 there was an upsurge of the Hindus all over the country as a result of which Hindus for a time obtained imperial sway over the greater part of the country.

Between 1175 and 1400 A. D., Turks, Afghans and Moghals, all Muslims, in search of loot invaded the country through the North-Western passes to found Muslim kingdoms in the country. Proselytizing zeal of Islam soon found willing or unwilling converts to its doctrines; but between 1175 and 1875, when the British finally took over, at no time was there any line of hostility drawn between Hindus on the one side and Muslims on the other.

Despite the political chaos that prevailed at the time of the break up of the Moghal empire in about 1700, the existing racial unity between Hindus and Muslims, coupled with the social and cultural synthesis created during four hundred years, had led to a complete adjustment between the two great communities. An overwhelmingly

large percentage of the ninety million Muslims of modern India are of the same race and culture as the three hundred and ten million Hindus. At no time except recently under British influence has there been any question that members of the two religions were different peoples ethnologically, culturally or politically, or that there are two nations in the country.

In 1857, the Hindus and Muslims of the country combined under the banner of the Moghal emperor of Delhi, then but an emperor in name, to drive out the British from their common Motherland. That war, which Indians call "The War of Indian Independence" and the British historians "The Indian Mutiny", was "a war fought over so vast a territory and by an alliance which included more diverse forces than had ever united in India against any conqueror from outside".¹ India lost its War of Independence, but it gave a definite shape to the imperialistic policy of Britain. Even to crush this mutiny the British had to 'turn different sections of the Indian people against one another by encouraging group and provincial enmities';² and so they decided to destroy their martial spirit. As a first step the homogeneity of the Indian Army was abolished. By discriminatory recruitment a new army was built up based on communal, caste tribal and provincial distinctions so as to maintain separate group loyalties. Hostile groups were counterpoised against each other in the formation of the army. "Dangerous" districts and intellectual classes were kept out of it. Indians were banned from higher posts of the army altogether. Pathans and Punjabis who were less than 10 per cent of the army in 1856 formed 47 per cent in 1858, and 59 per cent in 1930; while recruits from North East India, Bihar and United Provinces fell from 90 per cent in 1856 to 47 in 1858 and to 11 per cent in 1930³.

Governor General Dalhousie's policy of doing away with the old decrepit Indian states ruled by worthless relics of old families was replaced by a policy of keeping intact as many of the Indian states as were left. Indians in these states, therefore, were kept in water tight political compartments away from British Indians. The Rulers of these states, whatever their character or achievement, were now the "Allies" of His Majesty, subject only to the arbitrary rule of the Political Department of the Government of India. Any attempt on the Rulers' part to raise their head as 'the Ally' of His Majesty always evoked a sharp knock on the head. Lord Reading once reminded His Exalted Highness the Nizam of Hyderabad, one of the foremost of the Indian Princes, that Paramountcy is—paramount⁴.

On the communal plane, the British policy after 1857 was marked by activities calculated to destroy the old aristocracy in the country which was predominantly Muslim; to close their traditional career of the army; and to attract middle class Hindus into the subordinate services of the new administration.

India, it was calculated, would thus be deprived of a national focus.

1. Edward Thompson, History of India, p. 70.
2. Sir John Seely, Expansion of England, p. 270. ". . . So long as this can be done . . . The Government of India from England is possible . . . If by any chance the population should be welded into a single nationality, then I do not say we ought to begin to fear for our dominion, I say we ought to cease at once to hope for it."
3. Dr. B. R. Ambedkar, Thoughts on Pakistan, p. 70.
4. Quoted by H. M. E. Zacharias, in "Renaescent India."

Within twenty-five years, however, the national genius of India recovered from these blows. In 1885 the Indian National Congress was founded by leading Hindus, Muslims, Parsis and Europeans, all acting as Indian Nationalists. Its plank was a politico-economic nationalism. But it began humbly, by seeking only the redress of administrative grievances ; for, its leaders were incorrigible believers in British democratic liberalism of the Victorian era. They considered India's association with Britain as a "divine dispensation."

The National Congress at once became the focus, embodiment and instrument of the new nationalism through which the old harmony expressed itself. Within a year of its coming into existence British authorities threw their weight against it, whereas Hindus, Muslims and even the smaller communities looked to it for a common salvation. In 1898, however, the British saw in the growing strength of this body a danger to their imperial power and began to persecute its leaders. Mr. B. G. Tilak—one of the all India leaders—was sentenced to seven years' rigorous imprisonment in 1898 for the offence of sedition defined by law to mean "spreading disaffection towards the government."

From 1885 to 1905 the British Governors-General were busy trying to crush the national movement. In 1904 Lord Curzon, determined to keep India as the 'jewel' of the British Empire, started not only repression but administrative reforms calculated to destroy the political life of the country. He partitioned the province of Bengal in the teeth of opposition from the whole of India. A province united by ties of history language and culture was vivisected, ostensibly to favor the Muslims but really to "enfeeble the growing power and to destroy the political tendencies of a patriotic spirit."¹ Muslims were made a tool for imperial ends in order to "check the growing strength of the Hindu community,"² only to be let down later when the partition was annulled as a result of subsequent change in policy.

The rising national consciousness was strengthened not only by the country-wide agitation against the partition of Bengal, but also by an international event of supreme importance. In Japan's victory over Russia, the Indian people saw the emancipation of Asia from the thraldom of Europe. Political reforms were demanded, and in 1909 the constitutional changes known as Minto-Morley Reforms established legislative councils. They, however, were not intended to bring in parliamentary government, as Lord Minto the Viceroy himself made clear. Notwithstanding that, they were consultative ; but special care was taken to see that class was set against class, community against community, each to cancel out the effect of the other. Zamindars (big landlords) and commercial classes were given disproportionate representation at the expense of the politically minded classes, "substituting those who cannot criticise for those who can."³ Even going to the extent of creating special interests before such interests were organised or articulate.⁴ Again for counterpoising the Muslim community against the Hindu, Lord Minto stage-managed a Muslim deputation under the leadership of His Highness the Aga Khan, a staunch

1. Sir Henry Cotton in "India in Transition".

2. *The Statesman*, Calcutta Anglo-Indian Daily.

3. *The Statesman*, Calcutta Anglo-Indian Daily.

4. A. Mehta and A. Patwardhan, *Communal Triangle*, p. 65.

pro-British head of a religious sect of the Muslims. Thus this Viceroy "first started the Muslim hare" as Lord Morley the then Secretary of State admitted. The deputation was assured that Government was convinced that personal enfranchisement, as distinguished from communal, would be a "mischievous failure". The next right step, according to the Viceroy, Lord Minto, was to give separate electorates to the Muslims, in the proposed reforms. Thus a religious minority at the behest of the British authorities made an artificial demand to be converted into an independent political minority. The demand was cheerfully accorded as a make-weight against the growing Nationalism in the country, while the Councils, established under the Minto-Morley Reforms, of course remained "gilded shams" packed with "magnificent nonentities" whose constituency was the Government House¹.

The Muslim community was considered the "favourite wife", to use the words of a Lt. Governor of the province of Assam. Mr. Ramsay Macdonald, before he became premier, confessed : "The Mahomedan leaders are inspired by certain Anglo-Indian officials and these officials have pulled wires at Simla and in London and of malice aforethought sowed discord between the Hindu and Mahomedan communities by showing the Muslims special favours."² Thus was the first big step taken down the hill to the valley of communal disharmony.

In spite of all this dissatisfaction prevailing in the country the war of 1914 saw India on the side of Britain. The extent of India's contribution was out of all proportion to what one could expect from such a poor and discontented country.

About 1,400,000 Indian troops were despatched to European and Middle East battlefields, that is, 178,000 more than all the troops contributed by the combined Dominions of Canada, South Africa, Australia and New Zealand³. Britain, who had borne practically no share of the cost of the frequent military expeditions forced upon India by consideration of imperial interests hitherto, was now helped by India to the extent of \$ 500,000,000 contributed to the Allied War machine; \$ 700,000,000 in war loans purchased; and \$ 1,250,000,000 in finished products sent to the Allies⁴. By the end of the war the increase in India's political charges was about \$ 785,000,000 in civil departmental expenditure, \$ 1,250,000, in interest on war debt \$ 7,000,000, and in additional annual burden by way of interest alone \$ 33,000,000.

This countrywide co-operation in and support of the war effort was rendered possible because India, at least the politically conscious section of it, sensed the righteousness of British cause in the War. The Congress in 1915 at Bombay "recorded its abiding sense in the righteousness of the cause espoused by Great Britain and her Allies."⁵ The faith in British justice that was always foremost in the minds of Indian leaders for the moment displaced the suspicion that had been roused by recent actions. India actively took part in the war; its leaders felt it was India's duty and interest to do so. Mahatma Gandhi himself, then recently returned from

1. Sir C. Y. Chintamani.

2. Awakening of India, p. 176.

3. & 4. Dr. K. Shridharani in *War Without Violence* quoted by Dr. H. C. Mookerjee in *Modern Review*, July 1942.

5. *History of the Congress* by Dr. B. Pattabhi Seetaramayya, p. 207.

South Africa, in spite of his advocacy of non-violence, with his faith in British justice unshaken till then, went about recruiting men for the Army.

Mr. Lloyd George, then premier of Britain, gave public recognition to India's important contribution to the war when he said: "As to India, by her remarkable contribution to our triumph, notably in the East, she had won a new claim so irresistible that it ought to overpower and must overpower all the prejudice and timidity which might stand in the way of her progress."¹

The reward, however, came in the form of "legislative and administrative repression, deprivation of freedom of speech, freedom of the person, confiscation of property, suppression of newspapers, execution, flogging . . . which was Prussianism in excelsis"² in the same Mr. Lloyd George's refusal in 1920 to redeem the pledge he had given in January 1918 for favorable treatment of Turkey in order to placate Indian Muslim sentiment; in the massacre of innocents at Jallianwallabagh and the "Crawling order"; and in the insult added to injury when the "heroes" like General Dyer who maintained white prestige by the ruthless shedding of Indian blood at Jallianwallabagh were publicly honoured in England.

In 1917, compelled by the necessity of placating the intensely democratic spirit of the United States of America, whose armies Britain wanted badly on the battle fields of Europe, Mr. Edwin Montagu, the Secretary of State for India, declared Britain's policy in India to be "the progressive realization of responsible government in India as an integral part of the British Empire". But when the policy was translated into constitutional changes known as the Montagu Chelmsford Reforms in 1919, Britain could give India nothing more than a shadow of responsibility. The Reforms, in essence, were such that Mrs. Besant, the great English woman who then led the Indian Home Rule movement, referred to them as "unworthy of England to offer and of India to accept". But this was not enough. Britain went ahead with measures suppressing even the existing liberties, with "promiscuous floggings and whippings, indiscriminate arrests and confiscations, the so-called 'fancy punishments', designed not so much to punish individual 'rebels' as to terrorise and humilitate."³

Political frustration led to seething discontent in India against British rule. Belief in British justice had disappeared. Gandhiji's description of the Government as "Satanic" found echo in all hearts. It was in those dark days that Mahatma Gandhi assumed the leadership of the country. He inaugurated a mass movement of non-violent non-co-operation which gave a militant edge to Nationalism. By virtue of his hold over the masses, however, he could round off the mass upheavals, which otherwise would have led to unprecedented outburst of violence.

The Montagu Chelmsford Reforms came into force in 1919. They involved no real transfer of political power. Indians were asked to play the rulers' game while the actual work of ruling was left in the safe hands of the British officials who were in charge of the Reserved Departments as against the Transferred Departments given to Indians. Exposing, perhaps quite unintentionally in a moment of agony, the hollowness of this 'transfer' of a few departments to Indians (late) Sir K. V. Reddy,

1. & 2. Ibid pp. 301-2.

3. Sir Valentine Chirol, quoted in *Renaissance India*, p. 192.

one of the Indian ministers under the Montagu Chelmsford Reforms—not a Congress politician by any means—frankly confessed : “I am Minister of Development minus—forests ; minister of industries without electricity, which is a reserved subject ; minister of agriculture without irrigation.”¹ Late Sir C. Y. Chintamani, the veteran Liberal statesman, said “Diarchy succeeded only so long as it was ignored in practice.”

In 1921 and 1922, after having conceded this insignificant measure of constitutional progress, the British authorities started a fresh campaign of persecution Gandhiji was arrested and sentenced to six years’ imprisonment. All popular movements were suppressed.

In 1926, when the Swarajist Party in the Central Legislative Assembly led by Pandit Motilal Nehru—Pandit Jawaharlal’s father—succeeded in the passing of a resolution by that body proposing a Round Table Conference to revise India’s constitution, the Viceroy turned down the recommendation. But the British authorities did it—five years after ; and even then, but as a make-believe. The Simon Commission was announced, consisting only of “God’s own Englishmen” for examining India’s fitness for further instalments of constitutional progress. The insult implied in the Commission’s scope and composition was so well understood by the whole Nation that when it came it saw only black flags and “Simon Go Back” wherever it went. Only some unrepresentative persons—mostly reactionaries—could be persuaded to co-operate with it. When the Commission made its report there was no mention whatever in it of Dominion Status for India. It naturally decided against Indian fitness for any share of real responsibility in the government of their country. It could only think of granting some concessions here and there, to satisfy the ‘legitimate’ aspirations of those reactionaries who co-operated with them.

With the formation of the second Labour Government in Britain, Lord Irwin (now Lord Halifax) the Viceroy amplified Montagu’s 1917 announcement into a better looking formula. The Report of the Simon Commission was hastily shelved in Britain ; in India it found its place on the scrap heap, as Sir P. S. Sivaswamy Aiyar, the South Indian liberal leader once remarked. In 1928 Indians formulated a scheme of self-government known as the Nehru Report, so called after Pandit Motilal Nehru, the Chairman of the Committee appointed by an All Parties Conference.. But that scheme was rejected off hand by Britain. At the end of 1928, the Congress gave to the British government one year’s time to accept it, and when that term expired at the end of 1929 the Congress accepted Complete Independence as its goal.

This goal of Independence has been criticised by British spokesmen as ‘an impossible slogan, though Gandhiji once defined it as meaning the substance of independence’. But even after twelve years, not even the responsible government proposed by Lord Durham for Canada a century ago has been offered to India, leave aside the substance of independence.

In the beginnings of 1930, the Nation was seething with discontent when Gandhiji harnessed it to the Civil Disobedience movement. Repression, as usual, was started by the British authorities in India. But the international fortunes of England were running low and she wanted to tide over the difficulties in India. Early in 1931,

1. Quoted in Communal Triangle p. 70.

Mahatma Gandhi and other Congress leaders were released and the British government signed with Gandhiji the famous Gandhi-Irwin truce, through the Viceroy Lord Irwin (now Lord Halifax). On the basis of the declaration made by the British Premier, Mr. Ramsay Macdonald, regarding the scope of the Round Table Conference, the Congress was invited to attend the Second Round Table Conference. Gandhiji, as the sole representative of the Congress, attended the Round Table Conference in London, where was also invited a whole array of princes, communalists and representatives of interests created or supported for imperialistic purposes. Each group clamoured for its own order or class as against Gandhiji the only man who spoke for the whole Nation and on behalf of Nationalism and Democracy. The assembly was more a pompous debating society than a conference convened to chart a nation's destiny. By the end of 1931 the Conference ended; Gandhiji returned empty handed; and the Gandhi-Irwin truce was torn up by the British. The mailed fist was again brought into play. The so-called 'dual policy' was put into force by the British authorities in India. Its object was to crush the Congress and to give India such reforms as Britain thought fit in her own interest.

With nationalism locked up behind prison bars, Britain gave another heavy blow to Indian Nationalism in the shape of Premier Ramsay Macdonald's Communal Award—which later came to be known, and more aptly, as the 'Communal Reward.' The Indian National Congress and the Muslim League had come to a settlement of the political rights of the two communities, Hindus and Muslims, by the Lucknow Pact of 1916. Separate electorates by which the Muslims voted for and returned only Muslim candidates had led to the effective political segregation of that community. This had, as a result, thrown up leaders whose outlook was more communal than national. To gain political advantages for their community at the cost of Nationalism was their aim. Mr. M. A. Jinnah, who till then was a Nationalist leader associated with the Congress, put himself at their head. The Congress, in order to strengthen the bonds of Nationalism, wanted that for purposes of elections all the legislators should be elected by joint electorates with reserved seats; that is, Hindus and Muslims in a constituency would both vote for all seats in the legislature given to it, but a fixed proportion of these seats was reserved for Muslims to prevent any injustice being done to the minority community.

Encouraged by British statesmen, the Muslims now put forward demands which had the effect of converting the Muslim community which was a religious minority upto 1909 and a political minority since then, into a separate constituent unit of the Indian people. In certain provinces of India the Muslims demanded its own majority by either creating new boundaries or reserving statutory majority for Muslim as a counterpoise to the provinces with a Hindu majority. Mr. Jinnah had asked for these conditions on a promise of agreeing to joint electorates with reserved seats for Hindus and Muslims. This would at least have the advantage of eliminating the political bitterness which was growing on account of the separate communal electorates. But the British premier went one step further. He, in his award, conceded the demands of the Muslims but declined to give the *quid pro quo* to nationalist India in the shape of joint electorates. The result was that the Muslim community was no longer a political minority, but was suddenly converted into a separate,

distinct element of the body politic. It was a situation similar to the one which would arise in the U. S. A., if the Southerners are treated as a separate people with independent voting rights as against the Northerners. The germ of civil war was thus laid by British Premier, so that when the time came it could be exploited for the benefit of British Imperialism.

The three Round Table Conferences brought forth the Act of 1935. Passed through Parliament when Nationalism was being hunted down in India, it reflected the least common measure of agreement among three parties : first, the weak-kneed Labour Party leaders and the Die-hard Conservatives in England ; secondly, the Indian Princes who, as against the people of British India, were discovered to possess sovereign rights which they did not as against Britain ; and thirdly, hand-picked 'representatives' from British India. Out of the last group very few liberal politicians, lead by Sir Tej Bahadur Sapru, who had associated themselves with the last stage of the Conferences, disclaimed sympathy with the new proposals.

The new Constitution Act granted provincial autonomy hedged in with a multiplicity of safeguards and special powers which Sir Samuel Hoare, then Secretary of State, described as just "sign posts" but which, as was later proved, were irremovable impediments to democratic advance scattered over every vantage point. A constitutional authority of the weight and eminence of Sir Arthur B. Keith said : "With safeguarding of minorities the essence of responsible government is seriously if not fatally compromised. If the governors of the provinces were seriously to act on their special responsibilities it is certain that responsible government would never emerge."¹

If the provincial part of the Act was thus a farce, the Federal part was little short of a fraud. "It was a device", says Sir A. B. Keith "that was favored by the British in order to provide an elements of pure conservatism in order to combat any dangerous elements of democracy contributed by British India."² Deprived of control over external affairs and defence, the alleged concession of responsibility was "all but meaningless". The Viceroy was sought to be made the Grand Moghal, backed by the "loyal" elements of British India and the Indian Princes.

Naturally the country rejected this constitutional device. Gandhiji, however, persuaded the Congress to accept and work the new constitution in the provinces after a 'gentleman's agreement' was arrived at. The agreement was that in the seven out of eleven provinces, in whose legislatures the Congress held majority, the governors would hold their powers of interference in abeyance. This agreement worked from August 1937 to November 1939 when the Congress Ministries resigned. The fragmentary power which Indians enjoyed in the restricted provincial sphere under the new Act was enjoyed only by reason of this 'gentleman's agreement'. Once the Congress was out of the picture, all provincial governors treated their ministers with scant courtesy. The Premier of Sind, Mr. Alla Bux—a Muslim and Dr. Syama Prasad Mookerjee, the Finance Minister of Bengal, both had to leave office because the Governors, in the name of their Special Powers, were ruling the provinces over the heads of the so-called responsible Ministers. Sir Arthur B. Keith rightly warned long ago that there was possibility of true responsible government in

1 & 2. Indian Constitutional History, p. 473-4.

the Act only "through the wise disuse of, the powers of the Governor."¹ That warning remained unneeded because Britain did not want to transfer any responsibility to Indian hands.

When the war was declared on September 3, 1939, the Congress ministries were governing eight out of the eleven provinces ; out of the remaining, the ministry in Sind was supported by the Congress votes, and Bengal and Punjab were governed by Unionist ministries supported by votes of Hindus and Muslims outside the Congress. Thus the Indian Nation was allied to the British authority in India for the purpose of waging this war. But when the Viceroy followed the British premier by declaring India as a belligerent, he did not even so much as offer an apology for not consulting the popular representatives. This led to the strange spectacle of India at war with Germany and Indians almost at war with the British Government in India.

Mahatma Gandhi from the very first expressed sympathy with the object of this World War II. He was anxious to harness the Congress to it if it could be done with honour. But British policy was different. There is a large reservoir in India of semi-starved agriculturists and men from communities whose only hereditary vocation is the Army, from which it is always possible with food, pension and comfortable clothing to attract men ready to get themselves killed in any battle field. The British Civil Servants in India from the beginning expressed themselves against winning the support of Indian people. Britain was also aware of the tremendous power which its machinery in India could wield against the millions whom she had kept disarmed for about a century. To rely upon these factors appeared to Britain the best way to maintain her imperialistic hold over the country during and after the war, and to extract men and money out of the country by all-comprehensive coercive processes which the Defence of India Act and the Ordinances had placed in their hands. No friendly gesture to accommodate public opinion in India or to induce her to mobilise her resources fully on the side of Democracy was, therefore, forthcoming.

But the country, eager to fight on the side of Democracy and hating Totalitarianism as much as anyone in Britain or America, was chafing under a sense of frustration. At the same time it was not possible for Indians with any self-respect to participate in the war activities except as mere instruments of their own subjection. American opinion was also getting restive on the question of Indian freedom.

Because of these circumstances and the continued encouragement given to Mr. Jinnah to demand anti-national and anti-Congress rights for the Muslims, the country was fast becoming anti-British. In spite of this the Congress in August 1940 offered to share the burden and responsibility of the conduct of the war if a National Government—not a democratic or responsible government in any sense—was set up at the Centre representing all parties. The offer was cold shouldered.

To save the honour of the country without embarrassing Britain in her hour of danger, the Congress in December 1940 resorted to a symbolic Civil Disobedience ; which was 'neither in conception or in execution, communal or anti-Muslim or anti-British . . . Extraordinary precaution was taken to keep the movement within limits and absolutely innocuous—as a token of yearning of a political organisation to

1. Indian Constitutional History, p. 473-4

achieve the freedom of 350,000,000 people through purely non-violent effort and therefore to affect the future destiny of the world'.¹

When later Government saw the wisdom of releasing the Congressmen arrested in connection with the movement, it was the latter more than any other acted as a check on the growing antipathy to the Allies in the country and negatived any sympathy towards the Axis. To the Congress leaders, notably Pandit Nehru, animated by the circumstances of India's place in a free world, went the credit of mobilising Indian opinion against looking towards Japan or Germany as a friend and liberator.

In such an atmosphere of increasing friendliness to Britain's cause on the part of India's national leaders, an offer was brought by Sir Stafford Cripps to India in March, 1942. Had it been genuine and whole-hearted, it could have rallied India's millions to the Allied side in one bold sweep. The mission roused a good deal of hope in the country—mainly because of Cripps' reputation as a friend of Indian aspirations. It was felt that a new chapter of friendliness and co-operation between Britain and India was about to begin, that the dream of releasing freedom and utilising it for the noble cause of World Democracy was at last going to materialise. 'I would fight the Japs with my sword', said Jawaharlal Nehru, 'but only as a freeman'. But that was not to be.

The Cripps offer itself, as was feared by some, originating as it did with the consent of known Diehards like Churchill and his friends, envisaged no real transfer of power to Indian hands. During the war the present bureaucratic regime was to be kept intact. Departmental control over unimportant matters only was to be transferred to Indians. The principle of Balkanisation of India was conceded by giving to every province the right to secede. Congress was to help Britain fight the war on a future promise of freedom. The status quo in the Indian states was guaranteed, and their few hundred rulers were to continue to speak for 100 million Indians in deciding the destiny of the four hundred millions.

The scheme naturally set India doubting the sincerity of the British Cabinet. Nevertheless in their anxiety to get India to align herself with the progressive forces of the world in this struggle for democracy, the Congress offered to co-operate provided the immediate present offered an honourable and sound basis for such co-operation "Only the realisation of the present freedom could light the flame which would illumine millions of hearts and nerve them to action".² Only a free India could be in a position to "undertake the defence of the country on a national basis... and be of help in the furtherance of the larger causes that are emerging from the storm of war".³ The freedom it visualised for the country was only a limited independence such as is consistent with the conduct of the War and the membership of World Federation after it. It did not want to set up a government composed of itself alone, but of "the principal parties and groups in the country" and as an ally of the United Nations.⁴

1. Mahatma Gandhi, in an interview to the *Times of India*, Bombay.

2, 3 & 4. Resolution passed by the All India Congress Committee at Bombay on August 8, 1942.

It was then that the Cripps proposals, revealed their hollowness. It tucked away the key portfolio of National Defence out of Indian reach. The old mistrust and suspicion were amply evident. "They were ready to trust us with canteens and the printing of stationery" said a leader. The proposals envisaged an Indian defence member who would be" a merry spinster, and a jolly hotelier"¹ because actual defence itself, as Sir Stafford made clear, is a "paramount duty and responsibility of His Majesty's Government".² They would not permit national India to build up a national army even when it was pledged to battle against the Axis. Evidently, the fear of the Indian people overshadowed their fear of the Axis, though Sir Stafford himself acknowledged "the Congress's keen desire to carry on the war against the enemy by every means in their power."³ Even the principle of non-violence that had always been the sheet anchor of the Congress policy under Gandhiji was not permitted by the Working Committee to stand in the way of their offer to mobilise free India on the side of the United Nations. Ever since the commencement of the war, the Congress had "shied from non-violence like an unbroken colt".⁴ And the responsibility for still not having India fighting on their side must go not to the Congress but the blundering bureaucracy who were ready "to strike at Gandhiji when they should be preparing to strike at the foreign enemy",⁵ and to those at Whitehall who were not prepared to trust the people's leaders with responsibility of their own defence—obviously for fear of having to witness the liquidation of the empire. Interjecting the Cripps proposal the Working Committee stated "that an essential and fundamental prerequisite for the assumption of responsibility by the Indian people in the present, is their realisation as a fact that they are free and are in charge of maintaining and defending their freedom". Thus the Congress Working Committee was anxious to co-operate in the war in spite of this distrust, so long as they were genuinely invited to share the limited power and responsibility.

The Cripps Mission, however, failed, because, as usual it was "too little and too late", because of the unwillingness of British statesmen to appease Indian nationalism at the cost of their imperialistic ambitions. The national government which was first promised by Sir Stafford Cripps to the Congress leaders was later whittled down at the dictates of Whitehall and Delhi to a sham council, miscalled Cabinet, with an overhanging Democles' sword of Viceregal veto. India rightly refused to take up any responsibility for the war without any power to fight it. And not only the Congress, but the Muslim League, the Hindu Mahasabha, the Liberals, all communities and parties aligned themselves with the Congress in rejecting the offer. Feeling personally frustrated, Sir Stafford returned to sing the familiar tunes of Indian disunity, Congress tyranny and majority dictatorship.

1. Dr. R. M. Lohia, *Mystery of Sir Stafford Cripps*, p. 29. "All told, the Indian Defence Member would have had several faces, a merry spinster, a jolly hotelier, a diplomatist, commercial traveller, a stationer washing his hands in invisible soap, a harassed accountant and, above all, a demon of destruction without the power to heal."
2. *Ibid* p. 59.
3. Sir Stafford's letter to President Azad, cf. *Mystery of Sir Stafford Cripps*, p. 61.
4. Dr. R. M. Lohia, *Mystery of Sir Stafford Cripps*.
5. Louis Fischer in *The Nation*, New York.

Gandhiji's personal attitude throughout had been crystal clear. In him the world witnessed the gradual transformation of the "most loyal upholder of the British Empire to a Grand Rebel."¹ In 1915 he had "fallen in love" with British Empire, as he once confessed, because it governed man the least. In 1939, he shed tears for bombed Westminister and said "What is India's freedom worth if Britain and France fall?" When extremists clamoured 'Britain's adversity is India's opportunity' he pleaded for non-embarrassment of Britain. But when he saw through the Cripps proposals he advised the Congress Working Committee not to conduct further negotiations; which advice, however, at that stage remained unheeded. The Working Committee was left to itself to discover the truth of the Cripps proposals. In May 1942, Gandhiji asked Britain to 'quit India' and 'make a bloodless end to an 'unnatural domination'. He appealed to Britain and the United Nations, and frankly stated that he wished to be dissuaded from the last desperate step which he felt himself bound to take in the interest of India and the world. Recent British propaganda tries to paint Gandhiji as pro-Axis. Nothing can be farther from truth. His letter to Generalissimo Chiang Lai Shek affords ample proof, if proof were needed. "He is neither pro-Japanese nor pro-Axis" said Louis Fischer the noted American journalist; "he is definitely pro-British, pro-American, pro-Chinese." But he is frankly pro-Indian too, and that is enough for Britain, Officialdom in India never believed in the need or worth of Indian people's co-operation in the War. The lessons of Malaya, Singapore and Burma have been entirely lost upon them.

For bringing about this unhappy consummation, even at the grave hour of crisis for all freedom loving peoples, racial arrogance has played no small part. In the fields of battle, in the colonies, in the Services, even in trains and canteens, colour uppishness still prevails with many Englishmen. The Englishman's ideas of ethics and of politics undergo a sea change once he reaches India. As Aldous Huxley wrote "Ethical standards of Englishmen undergo a profound change as they pass from the essentially peaceful atmosphere of their own country into the conquered and military occupied Indian Empire. Things which would be absolutely unthinkable at home are not only thinkable but do-able and often done in India."² The principles of democracy, freedom of speech and person, all these are very valuable commodities at home, but they are either impracticable or unnecessary in the strange land that is India. Even Socialists like Herbert Morrison can still be heard talking patronisingly of "generosity" to the Indian "subject people".

Imperial vested interests are also a factor. The assurance of Sir Stafford Cripps to India that in the post-war free India envisaged by his offer British commercial interests will receive no special consideration has enraged them. High personages like General Alexander still talk of gaining back Burma for the British Empire. Churchill himself is frankly resolved to hold the empire at any cost. "His England includes India. He is an arch-imperialist by tradition as well as conviction".³

Mutual distrust and irritation, due to popular frustration at every turn, have begun to dominate Indo-British relations. In Churchill Indians see the arch-

1. Yusuf Meherally, Mayor of Bombay.

2. Ends and Means, p. 18.

3. Louis Fischer in *The Nation*.

imperialist. He was the most determined opponent of Egyptian independence; the leader of the die-hard opposition even to such a moderate measure of responsible government as the Act of 1935; the man who considers Dominion Status for India a "crime". When President Roosevelt stressed that the Atlantic Charter applies to the whole world, Churchill promptly came out with the statement that it does not apply to India. He is supremely satisfied with the fact that 'there are more white troops in India than ever before'; he is positive that 'he has not become the King's first minister to preside over the liquidation of the Empire'. In Mr. Amery the Secretary of State for India, the country sees the very embodiment of the principle of *divide et impera*, one who condoned Japanese aggression on Manchuria on the frank plea that the Japs were doing what the British did in Egypt or India; who bangs the door on any move for settlement yet continually harps on the theme of Indian disunity; who has excelled all his predecessors in the art of pitting communalist against nationalist, minorities against the majority, princes against people, soldiers against civilians. India, from one end of the country to the other, knows what future is in store for it, if these men dominate the counsels of the United Nations after victory is won.

On August 9th 1942 the British authorities in India swooped down on Gandhiji and leading Congressmen in the country and locked them up. The crime was the passing of a resolution by the All-India Congress Committee, the material part of which was as follows: "The A. I. C. C. therefore repeats .. the demand for withdrawal of the British power from India... (Then) a provisional Government will be formed, and free India will become an ally of the United Nations. The Provisional government will be a composite government representative of all important sections of the people of India. Its primary functions must be to defend India and resist aggression. It will evolve a scheme for a constituent assembly which will prepare a constitution for the Government of India acceptable to all sections of the people, (which) according to Congress view should be a federal one, with the largest measure of autonomy for the federating units, and with the residuary powers vesting in these units.... The future peace, security and ordered progress of the world demand a world federation of free nations .. On the establishment of such a world federation disarmament would be practicable in all countries, national armies, navies and air forces would no longer be necessary and a world federal defence force would give the world peace and prevent aggression. An independent India would gladly join such a world federation and co-operate on an equal basis with other countries in the solution of international problems".

The mass arrest of Indian leaders has led to what Lord Linlithgow called "a grave uprising," an outburst of antagonism to British rule all over the country, the like of which was never seen in the country since 1857. With the Congress leaders pledged to non-violence, lodged in gaols, the masses in several parts of the country rose up, defied law, and attacked every emblem of the hated foreign rule. Young men fired with frustrated patriotism, risked their lives in sabotage.

Since August 9th, when the Congress leaders were arrested, the British authorities in India are carrying on a ruthless campaign against everyone who dares to act or speak honestly in protest against the actions of the Government. The Defence of India Act has established a rule much worse than Martial Law in several parts of the country.

Mr. Wendell Willkie described the situation effectively when he said: "The reservoir of goodwill that Asia had and "still has in the United Nations is leaking dangerously through holes not punched by Hitler but by us."¹ And the biggest of these holes is in India. For, India's struggle is, in essence, the struggle of enslaved Asia against 'democratic' thralldom. The reservoir of goodwill in India is all but exhausted—to the detriment of all concerned. Can anyone plug this hole before it is too late? If anyone can, India believes, the United States of America can for she leads the United Nations.

The position today is this. Frustrated India has entirely lost faith in promises of freedom at the end of the war. If she can be enthused with the fervour of freedom, India can still rise like a man. Till yesterday she was the friend of Britain.

Today she is the friend of China and the U. S. A., pledged to the triumph of the Democracies, provided she is included in the scope of World Democracy. But mere promises of post-war redemption are not going to carry conviction with Indians, in spite of the professions of a few supporters of the British regime that such promises will be fulfilled after the war. India does not want to acquire the control of or replace British or American military machine operating in or for India during the war. She stands for the cause of a World Federation of Free Nations, led by the U. S. A. and Britain. She wants that the conduct of the War and the resources of the United Nations should remain with a central organisation representing all the United Nations. But she also wants that subject to the condition that she should have the same free and equal membership in this World Federation of Free Nations as any other constituent member. So long as this is not achieved, the problem of India and the War so far as Asia is concerned will not be solved. Nor for the matter will the problem of post-war peace be solved.

Kanaiyalal Maneklal Munshi, B. A., LL.B., M.L.A. (Bombay), is an eminent politician and an advocate of repute at the Bombay High Court. Until his resignation in 1942 on account of differences over the theory of non-violence he was actively associated with the Indian National Congress and served on both the Congress Working Committee and the All-India Congress Committee. He courted imprisonment twice during the Civil Disobedience Movement of 1930-32 launched by the Congress.

Mr. Munshi has been intimately connected with the affairs of the University of Bombay. He was elected to the Bombay Legislative Assembly constituted under the Government of India Act 1935 on the Congress ticket from the University Constituency in 1937 and acted as Minister, Home and Legal Departments, when the Congress decided to accept Office. He was arrested under the Defence of India Rules in November 1940 after the resignation of the Congress Ministries on the issue of the present war and was released in March 1941.

In addition, Mr. Munshi is a well-known Gujarati novelist and has to his credit not only Gujarati publications but several works in English also. He is also the editor of "Social Welfare" an English Weekly devoted to political and social problems.

1. Quoted in the Social Welfare Weekly, 29th Oct, 1942.

INDEX

- Agricultural finance in India
credit problems, 92-93, 166
financial requirements, 166
indebtedness of peasants, 75, 90-91, 168
See also Credit agencies in India
- Agriculture in India
cotton-growing, promotion and improvement of, 100, 113
cropping facilities, 89, 99
measures for improvement
 conservation and utilization of resources, 94, 95
 improved farming technique, 94, 99-100
 irrigation, 68-69, 94, 99-100
 lack of funds for, 102
 remedies for soil erosion, 100
 research regarding, 96, 98, 100
output, by commodity, 105-106
predominance of, as an occupation, 62-63, 74-75, 114, 132, 165
small, fragmented holdings, 89, 91
unprofitability of, 93-94, 174
See also Agricultural finance; Animal husbandry; Marketing; Peasants
- Animal husbandry in India, backwardness of, 95, 101-102
- Atlantic Charter
re freedom of international trade, 181
re-nonapplicability to India, 223
- Banking in India
as affected by World War II, 152-153, 160, 162-163
commercial banks as source of agricultural credit, 166
co-operative banks
 as source of agricultural credit, 166, 169, 172
 structure of, 160, 168-169
defects in banking structure, 164
foreign exchange banks, 158-160
indigenous bankers, 156-157
joint-stock banks, 157-158
legal status of, 163-164
progress in, 161
Reserve Bank of India
 agricultural credit facilities of, 172-173
 established in 1935, 156, 162
 functions of, 153, 160, 161
 unable to remedy inflationary tendency, 163
 value of, to banking structure, 161
- Birth control needed in India, 63-64
- Birth rates of India, 64
 compared with Great Britain and U. S., 78
- British administration in India
does not meet needs of rural economy, 95
established peace and orderly government, 4, 67
fails to eliminate illiteracy, 76
inimical to Indian interests, 6-7, 37, 42, 59, 63, 112-113, 116, 125, 129, 140, 143, 163, 189-190, 197-203
re property rights and tenancy status, 91-92
remote from Indian people, 5
See also Discrimination against Indians; Political freedom of India
- Caste system in India
achievements of, 111-112
as affecting sex ratio, 73
decay of, 112
description of, 110-111
makes for immobility of population, 75
- Civilization on India, *see* Cultural life of India
- Commercial organization in India
ancient mahajans, 184
dominated by British interests, 189-190
early chambers of commerce, 184-185
formation of Indian bodies 186-188
functions of commercial bodies, 185-186
inadequate recognition of Indian bodies, 189
trade associations, 185
- Communications
in Indian states, 19
See also Railways; Roads
- Communism
as influencing labour unions in India, 57, 137
officially opposed in India, 56
- Consumer credit, *see* Credit agencies in India
- Co-operative movement in India
functions of, in rural reconstruction, 101
See also Credit agencies in India
- Credit agencies in India
co-operative institutions
 as curbing operations of moneylenders, 171
 financial position of, 160, 166, 171
 loan operations of, 169-170
 meager achievement of, 160, 161, 170, 171
 needed improvements in, 171-172
 structure of, 160, 168, 169

- moneylenders
 curbed by co-operative movement, 171
 operation, regulation, and effects of 92;
 166, 168
 relation of, to banking operations, 156
 usurious rates of, 134
 Reserve Bank of India, 172-173
 Cripps mission, failure of, 14, 220-221
 Cultural life of India
 antiquity of 5, 12, 24
 as influenced by Islam
 architectural influence, 29-31
 influence on poetry, music, and painting,
 31-33
 intellectual influence, 28-29
 emphasis on spirituality, 22-24
 result of assimilation and synthesis, 5, 25-28
 50
 revivalism, 52-53
 scope of influence of, 5, 24-25
See also Caste system in India; Education;
 Influence of Western thought on India;
 Religions of India; Scientific research in
 India
- Currency and exchange in India
 as effected by World War II, 153-155, 162-
 163
 British motive regarding, 152-153
 future of, 155
 history of the rupee to 1931, 150-152
 present currency position, 153
See also Banking in India; Government
 finance in India
- Dairying and milk supply, *see* Animal husbandry; Food production
- Death rates
 infant mortality in India, 63, 109
 compared with England, Germany, and
 U. S., 78, 82
 maternal mortality in India, 63, 68, 72, 79,
 83, 105, 109
 compared with U. S., 78
 of India, 63-109
 compared with Great Britain and U. S., 78
- Defense of India
 armed forces
 mechanization of, 10
 morally handicapped, 14-15
 prewar strength and composition of, 10-11
 quality of Indian officers, 12
 wartime expansion of, 11-13, 214
- contribution of Indian states to, 19
 contribution to World War II, 10
 hindrances to, 7, 8, 14-15, 42-59
 financing of, *see* Government finance
 must henceforth be entirely an Indian re-
 sponsibility, 123
- Democracy, education necessary for, 42, 76
- Dietary habits in India, 84
- Discrimination against Indians
 in commercial organization, 189
 in educational opportunities, 35-36, 44-58
 in employment in high positions, 47, 139, 194
 in immigration countries, 205-210
 in opportunities for military training, 11, 13
 in the armed forces of India, 10, 11, 12,
- Economic conditions in India
 as affected by World War II, 142,
 improvement of, in last decade, 68-69
 intense poverty, 69, 93-94, 108-109, 125, 138
 165, 168
 caused by British imperialism, 112-113
 hinders industrial progress, 62
 not due to population growth, 60
 of industrial workers, 184
- state action necessary for improvement of,
 149
- See also* Agricultural finance; Housing con-
 ditions; Income; National income
- Education in India
 adult education, number of schools for, 42
 confined to upper classes, 35-36
 cost of, 40
 indigenous system, decay of, 34
 lack of funds for, 41
 languages used as medium of instruction,
 36, 38
 leading to employment, 35, 37,
 leading to unemployment, 38
 literacy, extent of, 51, 75, 76
 middle schools, numbers of and enrollment in,
 40
 motive for present system of, 34-35
 of military personnel, 11, 12
 of women, neglect of and demand for, 41-42
- primary education
 compulsory in some native states, 36
 neglected in British India, 35-36, 41-42
 number of schools and enrollment in, 40
- secondary and higher education
 enrollment in, 39
 increase and improvement in, 37-38
 number of institutions, 39

- suggested reforms in, 38-39
- technical education, backwardness of, 36-37
- vocational education, 132
- See also* Scientific research in India
- Enfranchisement in India, expanded by Government of India Act of 1935, 68
- Family life
 - lack of, among Indians abroad, 205
 - See also* Marriage and family life in India
- Food production in India
 - agricultural products, 105
 - insufficiency of, 86, 108-109, 132, 133
 - meat and by-products, 106
 - milk, 86, 102, 106
 - See also* Nutritional science
- Gandhi, Mohandas K. (Mahatma) 24, 25, 38, 53, 55, 64, 68, 136, 137, 198, 222
- Geography of India
 - area, 82, 191
 - rainfall and irrigation, 68, 69, 88-89, 98-99
- Government finance in India
 - change from debtor to creditor position, 13, 129, 141, 180
 - expenditures
 - for agricultural improvement, inadequacy of, 102
 - for defense and other security services, 10, 11, 13, 138, 140-141
 - for education, 40
 - for social services, 138-139
 - future of, 143-144
 - public debt, 140
 - as affected by World War II, 142
 - repatriation of sterling debt, 13, 129, 141, 155, 162, 180
 - revenue, 139-140
 - increased by war activities, 141
 - sources of increase of, 141
 - See also* Currency and exchange in India
- Governmental structure of India, *see* Indian states; Political structure of India
- Handicrafts and cottage industries in India
 - efforts to revive, 114-115
 - replaced by imports, 111
- Health and health measures in India
 - as affecting efficiency of workers, 83, 131, causes of death, 78-79
 - comprehensive health program needed, 85, 87
 - diseases
 - blindness, 79
 - hookworm, 131, 133
 - leprosy, 79, 133
 - malaria, 83, 131, 133
 - tuberculosis, 131, 133
 - various, 78-79
 - venereal diseases, 133
- expectation of life, 78
- improvement of, 68
- inadequacy of health measures, 83
- inadequate food supply, 86, 108-109, 132-133
- needless suffering and death, 79-80
- relative health of men and women, 71-72
- undernourishment of industrial workers, 132
- See also* Death rates; Nutritional science
- Housing conditions in India, 109
 - in industrial areas, 133-134
- Imperialism condemned, 9-10
 - See also* British administration in India
- Income in India
 - per capita, 83, 108, 112, 138
 - compared with other countries, 85
 - per earner, 108
 - per family, 94
 - See also* National income
- Indian states
 - administration of, 61
 - communications in, 19
 - compulsory primary education in, 36
 - constitutional position of, 16-17, 19
 - contribution of, to defense, 19
 - development of, compared with British India, 17-19
 - number and area of, 16
 - population of, 16, 61
 - prospects of, 20-21
 - relations of, with British India, 19-20
 - trade relations of, 19-20
- Indians in other countries
 - Government of India and, 208-209
 - indenture system, 204-205, 208
 - Indians excluded from British Dominions, 207-208
 - Indians excluded from United States, 209-210
 - lack of family life among, 205
 - motives for emigration, 204
 - number and geographical distribution of, 204
 - occupational distribution of, 205
 - political status of, 206, 207, 209,
 - prospects for, 210
 - retain their racial integrity, 205
 - retain their religious integrity, 205-206
 - social and economic status of, 205-206

- India's contribution to World War II *see Defense of India*
- Industrialization in India
 advanced by World War I, 6, 131
 advanced by World War II, 7, 13, 122, 132, 162
 armament industries, 10, 13, 117
 as affecting postwar foreign trade, 180-181
 backwardness of, 52, 122, 125, 148
 capacity for development, 129-130
 characterized by small-scale and cottage industries, 134
 cotton textile industry, development of, 125-126, 134
 foreign control of, 129
 government obligations regarding, 122-124
 hampered by British administration, 6-7, 37, 42, 62, 125-129, 189-190
 haphazard growth of, 128-129
 lack of capital goods industries, 127-128
 limited by poverty of masses, 62
 natural resources for, 119-122
 postwar army requirements as nucleus for, 123
 production, compared with other countries :
 coal, iron and steel, chemical nitrogen, electricity, 118-119, 125, 126
 state ownership of industries desired, 114, 116
 various industries, 126-127
 war potential, underdeveloped, 14
 world position of, 132
see also Handicrafts and cottage industries ; Tariffs of India
- Influence of Western thought on India
 complexity of Indian response, 51-52
 fascism repulsive to India, 55
 following advent of the British, 5-6
 following World War I, 54-55
 India's admiration for Soviet Union, 55
 liberalism, secularity, individualism, 53-54
 likely to increase, 57-58
 nationalism, 36-53
 resistance to Western thought, 50-51
 response to socialistic theories, 55-57
- International trade
 more important than internal trade, 175
of India
 before World War II, 175-176
 composition of trade, 179
 direction of trade and bilateralism, 177-178
 trade agreements, 177-178
- during World War II, 175-180
 postwar prospects and policy, 180, 182-183
 under ancient regime, 111
 trend toward increased freedom of, 181-182
See also Tariffs of India
- Internationalism in India, 57
- Islam, *see Religions of India*
- Labor in India
 attitude of, toward World War II, 137
 causes of inefficiency of, 83, 131
 child labor, 135
 economic conditions of workers, 134
 hours of work, 135
 housing conditions for, 133-134
 labor legislation and its administration, 135
 most backward element of the population, 132
 number of industrial workers, 134
 political representation of, 136
 postwar position of, 137
 social conditions among workers, 133-134
 training of, 132
- Labor unions in India
 as affected by the depression, 136
 communistic character of, 57
 leaders of, being trained in England, 132
 membership of, 52
 modeled after European labor unions, 51
 obstacles to, 135
 originated in 1918, 136
 progress of, 135-136
 resulting in industrial unrest, 136
- Legislation in India
 re banking, 163-164
 re labor, 134-135
- Life expectancy in India
 compared with Germany and England, 82
 compared with Great Britain and U. S., 78
- Literacy
 as related to democracy, 76
 defined by Indian census authorities, 75
 in India 75-76
 in Philippine Islands, 78
 in Russia, under czarist regime and Soviet Union, 76
- See also* Education
- Marketing in India, agricultural movement to improve, 100-101
 unsatisfactory status of, 93
- Marriage and family life in India
 as affected by caste system, 73

ban on widow remarriage, 72-73
 disparity in ages of married couples, 72-73
 early marriage, 69
 joint family, 70
 male babies preferred to females, 71
 religion favors marriage, 71
 sex intimacy as recreation, 69, 134
 universality of marriage, 70-71

Migration

internal, in India, 89, 93
 lack of, in India, 74-75

See also Indians in other countries

Monetary policy in India, *see* Currency and exchange in India

National income

defined, 103
 of India
 "income method" estimates, 106-108
 "inventory" estimates, 104-106
 lack of data on, 103
 method of calculation of, 101-104
 occupational distribution of earners, 104
 sources of, 104-108
 urban-rural distribution of earners, 105
 value of agricultural production, 105-106
 value of livestock products, 106

See also Income in India

Nationalism in India

a result of the Western impact, 36, 53
 crushing of, 213
 cultural and scientific expressions of, 45
 strengthened following World War I, 135
 voiced by Gandhi, 55

Native states, *see* Indian states

Natural resources, *see* Raw materials

Nehru, Jawaharlal, 57, 62, 136, 137

Nutritional science, 83-84

application of, needed in India, 84-85
 dietary requirements of India, 85-86

See also Food production in India

Peasants in India

adversely affected by research activities, 113
 peasant movement, objectives of, 57
 property rights and tenancy status of, 91-92

See also Agricultural finance; Agriculture;

Credit agencies; Rural reconstruction

Planned economy

suggested outline of, for India, 113-114

superiority of Hindu form of, 110

Political features of India

as affected by Western thought, 53-54

Gandhism, 55

internationalism, 57

peasant movement, 57

provincial autonomy, 6, 9

See also British administration in India; Nationalism in India

Political freedom of India

an asset to humanity, 9

desired by Indian states, 21

necessary for

best results in Indian army, 14-15
 full utilization of human resources, 64-65
 industrial development, 130, 192
 mass welfare, 81, 95
 postwar reconstruction, 58
 satisfactory transportation policy, 196
 suitable currency policy, 155
 wise public finance policy, 143-144

origin of movement for, 36

See also British administration in India; Nationalism in India

Political structure of India, 7, 16, 60-61

See also Indian states

Population of India

age distribution of, 86

density of, 67, 89

increased by agricultural improvement, 69
 factors in growth

improvement in census-taking, health measures, and economic conditions, 67-69

marriage and family customs, 69-70

peaceful conditions, 67

immobility of, 62, 74-75

in British India, 85

in Indian states, 16

internal migration of, 89, 93

occupational distribution of, 61, 104

overseas, 204

religious composition of, 76-78

rural-urban distribution of earners, 105

rural-urban ratio in, 73, 74, 101, 165

sex ratio in, 71, 73, 133

size and growth of, 39, 60-61, 66-67, 82, 89
 132

compared with other countries, 60, 67, 191

exceeds production of necessities, 132-133

suggested population policy, 80-81

See also Birth rates; Death rates; Health and health measures

- Postwar prospects**
- for currency in India, 155
 - for increased freedom of international trade, 181-182
 - for India's foreign trade, 180, 182-183
 - re labor in India, 137
- Prices in India**, as affected by World War II, 142-143
- compared with those in U. K. and U. S., 162
- Public works in India**
- constructed under ancient regime, 112
- Railways in India**
- and the Indian states, 19
 - as related to economic progress, 127-131
 - 193-194
 - earnings, 192
 - electrification of
 - a government responsibility, 123-124
 - importance of, 123
 - management of, 193
 - mileage, 19, 191
 - compared with other countries, 191
 - state ownership of, 192
 - traffic, 191-192
- Raw materials**
- importance of, for industrial and agricultural development, 117-118
 - of India, 119-122
- Religion of India**
- Hinduism, 22-24
 - Islam
 - as influencing culture of India, 28-33
 - basic principles of, 26-27
 - percentage distribution of, 74, 77-78
 - political import of, 76-77
 - retained by Indians abroad, 205-206
- See also Caste system in India*
- Roads in India**
- construction and maintenance of, 195-196
 - system of, 194-195
- Rural reconstruction in India**
- co-operative movement and, 101
 - private attempts at, 114-115
- Scientific research in India**
- an expression of nationalism, 45
 - British administration and, 43, 45-47
 - detrimental to rural population, 113
 - directed to improvement of rural life, 114-115
- handicaps to, 43, 45-48**
- re agricultural improvement, 96, 98
 - scientific journals, 49
 - specific achievements in, 43-45, 46-47
 - value of, 48-49
- Shipping industry**
- and trade agreements, 200-201
 - as affecting national economic policy, 201-202
 - British subsidies to British shipping, 202
 - of India
 - large maritime trade, 197
 - subordinated to British interests, 190, 197-208
- Soil erosion**
- causes of and remedies for, 100
- Standard of living**, *see Economic conditions in India*
- Tagore, Rabindranath** 24, 25, 38, 57
- Tariffs of India**
- as affected by World War II, 148, 149
 - conditions for granting protection to an industry, 145-146
 - conflict with Great Britain regarding, 145
 - discriminating protection as applied to specific industries, 132, 146, 147
 - imperial preference, 147
 - postwar policy, 149
 - tariff machinery, 147-148
- Tata, J. N.**, 37, 48
- Taxation in India**
- incidence of income tax, 105
 - occupational distribution of income-tax payers, 107
 - system of, 139-140
 - taxable and nontaxable incomes, 107
 - wartime change in favor of poor, 143
 - wartime increase in, 141-142
- Transportation**, *see Railways; Roads*
- Unemployment and underemployment in India**
- a chronic condition, 125, 138
 - due to imports, 111, 194
 - resulting from education, 38
- Villages in India**
- number of, 34, 82
 - unhygienic conditions in, 85
- S9-2335
10757*
- Vital statistics**, *see Birth rates; Death rates; Life expectancy*
- War, economic basis of**, 116

Some of Our Publications.

ECONOMICS

Beveridge Explained

By G. D. H. COLE

A Brilliant exposition of the famous Beveridge Report on Social Security in a clear and concise style by an eminent Economist.

Cr. 8 vo. 74 pages

Rs. 1

Plan for Britain

By G. D. H. COLE, SIR WILLIAM BEVERIDGE, HAROLD LASKI, ANEURIN BEVAN, JIM GRIFFITHS & L. F. EASTERBROOK

Fabian Society Essays on the planning of British Economic Life.

Cr. 8 vo. 122 pages

Rs. 2

Can Planning Be Democratic ?

By HERBERT MORRISON, G. D. COLE, C. E. M. JOAD, BARBARA WOOTTON, JOAN ROBINSON & T. W. AGAR.

Fabian Society Essays on the planning process under a Democratic system. Very thoughtprovoking essays.

Cr. 8 vo. 132 pages

Rs. 2-12

Planning Economic Transition from War to Peace

By DR. V. K. R. V. RAO, M.A., Ph.D. (Cant.)

A survey with practical suggestions for dealing with the transitional problems. A very profound and practical study.

Cr. 8 vo. 72 pages

Rs. 1-8

What is wrong with Indian Economic Life ?

By DR. V. K. R. V. RAO, M.A., Ph.D. (Cant.)

A simple outline of Indian Economy, with constructive suggestions.

Cr. 8 vo. 56 pages

Rs. 1-4

Modern Economic Development of Great Powers

By D. S. SAWKAR, M.Com.

Economic history of four great Modern Nations, Great Britian, U. S. A., Germany & Japan. 2nd edition.

Cr. 8 vo. 504 pages

Rs. 7-8

Economic Problems in Indian Agriculture

By MAHESH CHAND, M.A., B.Sc. (Hons.)

A survey of various problems connected with Indian Agriculture.

Cr. 8 vo. 56 pages

Rs. 1-4

U. K. C. C. and India

By A. N. AGARWALA, M.A.

History, growth and activities of United Kingdom Commercial Corporation.

Cr. 8 vo. 96 pages

Rs. 2-8

Cottage Industries and their Role in National Economy

By R. V. RAO, M.A., B.T.

A plea to infuse new life into small scale Industries which has a definite place in Indian Economy.

Cr. 8 vo. 60 pages, Revised 2nd Edition

Rs. 1

Consolidating Banking Law

By K. T. SHAH

A detailed commentary on the provisions of new Banking Bill.

Cr. 8 vo. 60 pages

Rs. 1-12

An Essay on Gandhian Economics

By J. J. ANJARIA, M.A., M.Sc., Econ. (Lond.)

An exposition and analysis of Mahatma Gandhi's ideas relating to Economics.

Cr. 8 vo. 48 pages

Rs. 1-4

POLITICS

The Gandhian Way

By ACHARYA J. B. KRIPLANI

General Secretary, Indian National Congress.

A brilliant exposition of Mahatma Gandhi's Philosophy and Political ideas and an answer to the critics of Gandhian ideas.

3rd edition in press.

Foundations of Peace

By K. T. SHAH

The Fundamental Problems of Peace in light of Atlantic and San Francisco Charter, Four Freedoms, World Security, subject nations, are all discussed profoundly by this eminent Indian Author.

Demi 8 vo. 192 pages, Antique Paper

Rs. 6

Provincial Autonomy

K. T. SHAH

Cr. 8 vo. 402 pages, 2nd ed.

Rs. 1-8

Federal Structure

K. T. SHAH

Cr. 8 vo. 449 pages

Rs. 2-8

Both these books are of National Publication Society Series of which Pandit Jawaharlal Nehru, Acharya Narendra Dev and Prof. K. T. Shah are editors. Various Provisions of Govt. of India Act of 1935 are interpreted in a most penetrating manner and their relation to Indian political conditions shown.

Zonal Divisions of India

K. M. MUNSHI, M.A., LL.B.

A strong plea against the partition of India.

Cr. 8 vo. 16 pages

As. 8

Stalin-Wells Talks

A Verbatim record & discussion by G. B. SHAW, H. G. WELLS, J. M. KEYNES, ERNST TALLER & OTHERS.

A lively discussion which reveals Stalin's personality also.

Cr. 8 vo. 64 pages, with Low's Cartoons

Rs. 1-8

Whither Europe?

By M. N. ROY.

As. 8

The Alternative

By M. N. ROY.

As. 8

VORA & CO., PUBLISHERS LIMITED.

3, ROUND BUILDING, BOMBAY, 2